An Address
ON
ETHICS AND INDIVIDUALISM IN MEDICINE.

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GENTLEMEN,—This is a day of salutations. We are met here, as are many other groups of men with pursuits or interests like our own in London and the provinces, to greet a new medical year, to welcome those who have come to join our ranks, and to exchange words of encouragement with one another. On such a ceremonial occasion it would not be appropriate, I think, for him who is made a mouth-piece of the hour to indulge in any disquisition on the special professional topics that engage his attention and with which he is no doubt most competent to deal, and least of all would such a course be justifiable when, as happens this evening, the speaker is interested in a very special specialty, recondite in its subject, complicated in its relations, and highly technical in its terms. I shall not, therefore, take advantage of the opportunity to inflict upon you a discourse on mental perturbations, or on the molecular commotions of the brain; nor shall I attempt to elucidate any point in nervous mechanism. I shall merely submit to you a few general observations suggested by my visit to Birmingham, and by the circumstances of this vigorous and flourishing medical school, a new session of which opens to-day. And in the first place, gentlemen, as a disinterested observer having some knowledge of many medical schools and not being personally connected with any one, I would congratulate you who are beginning or continuing your studies here, on the very favourable conditions under which these studies will be carried on. The history of your school is an instructive illustration of the rapid evolution of a useful and necessary institution. The germ of it, as your Calendar says, was planted just seventy-two years ago in a private house, where some classes were conducted by Mr. Sands Cox, but in three years that germ had sprouted into a medical school; in twenty-eight years it had grown so luxuriantly as to be deemed worthy of being fenced about by Royal Charter; and in sixty-seven years, that is to say in 1892, having meanwhile branched out in various directions, it blossomed into its present comeliness, as the Queen's Faculty of Medicine of Mason College. In little more than the allotted term of a man's life, an insignificant private enterprise has developed into a great and prosperous public seminary for medical education, fully organised and thoroughly well equipped in every department. So complete is your school, so adequate is the education it offers, that its students are entitled to ask that facilities should be given to them for the acquirement of degrees, and success must therefore be wished to the project which is now on foot to obtain the authorisation of a Midland University.

The advantages which your school derives from its union with Mason College are so patent and well known to you that I need not even name them; and the advantages which Mason College derives from its union with your school will, I am sure, be generously acknowledged by the representatives of its other faculties. At this very moment every medical student I am addressing must, I believe, experience a stimulus as well as a sense of pride in the knowledge that an alumnus of this college has attained to the distinguished position of Senior Wrangler at Cambridge; while the students in the faculties of arts and science cannot, I am sure, but regard with some sympathetic interest the admirable work in myology and teratology that is being done in the anatomical department by Professor Windle, your accomplished and energetic Dean; the valuable researches into the functions of the suprarenal bodies that have been undertaken by Dr. Vincent; the original pathological observations that we owe to Professors Saundby and Barling; the ophthalmic studies of Mr. Priestley Smith; and the surgical achievements of Mr. Jordan Lloyd. It would be trite to discuss the actions and reactions of Mason College and the Queen's Faculty of Medicine upon each other, but I may perhaps be permitted to say a word as to the influence which seems to have been exerted on both by their surroundings. Institutions, colleges, schools, societies, have their distinctive characters, just as have individual men and women; and the distinctive character of Mason College and the Queen's Faculty of Medicine is, I should say, practical and utilitarian. The active, searching, contriving, empirical spirit of Birmingham has called both of them into being to meet urgent public wants, and has impressed its stamp upon them. The Founder of Mason College was undoubtedly moved to establish it by recollections of the difficulties he himself experienced in preparing for an industrial career, and by a desire to promote the manufactures of the town and district, and the original deed provided for scientific instruction only, with the addition of modern languages which of course have a commercial value. The founders of the medical school, on the other hand, aimed at the education not of professors or devotees of science, but of expert surgeons and medical men qualified to practise their art. Both the college and the school have in recent years greatly enlarged the scope of their teaching, letters on the one hand and science on the other now taking a much more prominent place than they once did, but both are still dominated by a regard for the immediate economical requirements of the place and period.

The practical and utilitarian intent which I have ascribed to this college and school will no doubt be regarded by some as an opprobrium. We have it often dinned into us that it is knowledge "for its own sake" which we should pursue, without any concern as to its applications, but while not disputing this authoritative dictum I would suggest that there is room for all kinds of knowledge in this world, and that while knowledge for its own sake is good and may unquestionably lead to unforeseen results of the utmost value, knowledge for bread-and butter's sake is not bad, and must always have a primary claim in beings who have the pangs of hunger to appease. Pure science, erudite learning, and proud philosophy find, perhaps, their fittest homes in colleges and schools to some extent sequestered and remote from the busy haunts of men, while technics and science bearing on industry and the business of life will be most suitably located in great centres of population like Birmingham. Carlyle called Naseby field the navel of England, and Birmingham might perhaps be described as the medulla oblongata of the industrial world, made up as it is of a collocation of centres that are essential to the maintenance of crafts and manufactures in all quarters of the globe. Without the weapons, the implements, the machines, the fabrics that it pours forth, human activities would be paralysed in many regions, and any interruption of its functions would certainly have an asphyxiating effect upon the whole of this country. The atmosphere of Birmingham is keenly practical, and it is but natural that the institutions of Birmingham should have a practical complexion.

As regards the medical school here, the practical turn given to its teaching in harmony with the *genius loci* is worthy of all commendation. Its main purpose is not to fit out original investigators, but to arm and discipline those who are to contend with the forces of disease; and in order to do that it has, as science progresses, to insist more and more on laboratory, dissecting room, and clinical work. It is steadily increasing its laboratory accommodation, and you do not require to be urged to avail yourselves of the opportunities thus opened out to you. Nay, it occurs to me that a word of warning of an opposite kind may be useful, and that you should be recommended, in your addiction to laboratory work, not to under-estimate the utility of the systematic teachings of your professors. Lectures do not certainly play the prominent part in medical education that they did in my student days. In the University of Edinburgh thirty years ago we had to listen to lectures five hours a day five days a week. But while admitting that lectures were formerly overdone, while practical, experimental, and tutorial work was neglected, I cannot agree with those who would discard them altogether from our curriculum as mere slipshod versions of what is to be found in the text-books, or who depreciate their teaching power. The spoken word has a vitalising influence that is all its own, and oral instruction has physiological claims to the academic precedence which has been at all times accorded to it. In this bookish age a very large proportion

of our acquired knowledge comes to us through the eye, whereas in bygone centuries the ear was the main, nay, the almost exclusive, channel for the importation of learning; and there can be no question that the invention of printing has to some extent modified the structure of the brain by diminishing the functional demands on its auditory paths and rendezvous. The increased use of one sensory centre and the diminished use of another, in connexion with cerebral activities of wide range and potency, must, during the development of the cortex and brain generally, have led to changes and deviations in the associative paths and internal convolutions linking and lying between the sensory and the motor centres. And thus traffic of a certain class having been diverted from the ear to the eye there must have been a broadening and multiplication of the high-roads and bye-ways leading from the visual centre in the occipital lobe to the central or distributive and the efferent or expressive centres, and a corresponding narrowing or abandonment of the routes connecting the aural centre in the superior temporo-sphenoidal convolution with them. Vision has become more and more the dominant sense in education. But although vision is the dominant sense, we must not rely upon it too exclusively, for even our simplest ideas are built up by contributions from all the senses, and those mental stores are most useful and available that can be readily approached by several different alleys. Entire dependence on a single avenue of sense may give very precise reactions graded in accordance with the intensity of one kind of stimulus, but the full and free growth of intelligence requires the well-balanced activity of all the organs of sense by which materials for distinction and comparison are supplied. All the secondary sensations that fringe our mental images enhance their working value and enable us to lay hold of them more readily, and the most perfect response is obtained from those cerebral centres that are invaded by sensory impulses of several different sorts. Clearness of conception, quickness of apprehension, and breadth of thought belong to the brain that has been thoroughly opened up, both in its auditory and visual tracts and their connexions, and hence the high significance of ear-teaching in education. There is sagacity in the Prayer-book exhortation to god-parents, that they are to call upon those for whom they are sureties "to hear sermons," and I am inclined to believe that the dialectic and polemical ability of my countrymen in Scotland is to be attributed in some measure to the voluminous pulpit utterances to which they had to listen in their boyhood.

I am not suggesting, however, gentlemen, that there will be anything of the nature of the sermon in the lectures that you will have to listen to in this college, and that will, as auditory impulses, after passing through masses of nerve fibres and throngs of cells, enter and illuminate your consciousness. Sound these lectures will be I have no doubt, cogent in argument, elevating in tone, but they will not be homiletical in character, but will necessarily deal with those direct observations and material problems and experiments that form the foundations of medical science and that have taken the place of the dogmas and speculations upon which it once mainly rested. All recent progress in medicine has depended on research and discovery carried on by physical and chemical methods. The mechanical principles that were first applied in anatomy, the mother science of medicine, to the explanation of the construction and movements of bones and muscles have been carried by the physiologist into every organ of the body and into the arcana of the tissues, and have been shown to be essential to the understanding of the changes that take place in them during the performance of their functions. And at the same time the aid of chemistry and electricity has been invoked to drive back step by step, and if possible to banish altogether, that vitalism which was at one time all but supreme in the domain of animal physiology. And now, not content with his corporeal conquests, the physiologist is pushing his mechanical methods into the realm of psychology, and is seeking by means of them to investigate the data of consciousness. Having by electrical stimulation and other experimental procedures localised sensory and motor centres in the brain, having shown that there is a definite order of development in the nerve tracts, and having disentangled to a large extent the paths of nervous impulses of various kinds, their halting points and goals in nerve cells, he is now eager to catch ideas on the wing and to examine them in the usual manner. Helmholtz, in his great works on vision and hearing, was the first to show how physics mount into physiology and psychology, and after him Weber, Fechner, Lotze, and Wundt have step by step pushed forward the parallels of the material accompaniments of thoughts and feelings. And quite recently a movement has sprung up in Germany to advance still further mechanical explanation of the facts of mental life, and to bring psychology, which has always been scientific in as far as it has observed and classified and analysed phenomena, into line with the exact sciences of external nature. Experimental psychology has been inaugurated, and research laboratories, in which the physical and vital changes that are associated with mental processes are to be measured and tested, have been established. Originating in Leipzig, experimental psychology has taken root in several other centres on the continent, has spread to America, where it has been eagerly adopted, and has at last made its way into England. The University of Cambridge has voted a sum of money to be devoted to investigations in connexion with it, and a few months ago a meeting was held in London to promote the establishment of a laboratory for its study in University College. The names of those who attended that meeting are a sufficient guarantee that the project which it approved will be successfully carried out. I have little doubt that suitable arrangements will be made for instruction in the new methods of psycho-physical research in University College, and that in course of time other schools and colleges—Mason College amongst them—will follow its example and afford facilities for studies in anthropometeric psychology. I have little doubt, too, that such studies will be fruitful of useful results, by widening the scientific basis of psychology and supplying us with standards by which to gauge the speed and duration of certain neural operations, the variations in these in different individuals, and the depth of certain mental defects. But at the same time I am disposed to think that exaggerated notions are entertained as to what experimental psychology can actually accomplish. Its field is, after all, a narrow one. It can never supplant self-observation and introspection as means of mental analysis, and must indeed always to a large extent lean on these. It is practically restricted to the measurement of sensations and movements and the gaps between them, or the simplest mental processes; and hitherto it has, it must be admitted, been somewhat ambiguous and indefinite in its declarations. For my own part I look with more sanguine expectations of light on the obscure problems of mind to comparative, ethnical, developmental, and pathological psychology—which may all, of course, be investigated by experimental methods—than to the new experimental psychology strictly so-called.

We all gratefully acknowledge the immense debt we owe to experimental physiology with its exact mechanical methods. It has dispelled myths and errors, supplied us with a body of precise and well-organised knowledge, and revolutionised our treatment of disease; and it promises in the future not only to augment our healing power, but to afford trustworthy guidance in education and in the regulation of some social relations. As it stands to-day physiology, it seems to me, offers a liberal culture to all who study it. An independent science itself, but in touch with all other sciences, it brings into exercise observation, judgment, and memory, while it passes in review questions of surpassing interest to every human being, and thus confers an admirable intellectual discipline while storing the mind with information that must prove useful in the conduct of life. I would be disposed to say that physiology might henceforth with excellent results enter much more largely than it has hitherto done into a general liberal education; that is to say, into the education of those who do not intend to follow medicine as a profession; and I would even suggest that the young men of Birmingham who are destined to carry on its staple trades might be worse employed than in attending a course of physiology in this college. I read the other day that the late Sir Isaac Holden attributed his invention of the square-motion wool-combing machine, which made his fortune and brought about a complete transformation in our woollen industries, to the fact that he tried to imitate as closely as possibly the movements of the hand of the hand-comber. On this physiological basis he laboured consistently, and on it he achieved success where many others had failed. And the human body, you may depend upon it, is a rich storehouse of practical hints of this kind—a storehouse of which physiology holds the key. It is an epitome of mechanics, and in its exquisite machinery the engineer, the artificer, and the

inventor may still find, perchance, some vein of new inspiration. But apart from any such possible treasure trove, the study of physiology is well deserving of the attention of those who are to engage in arts and manufactures like those of Birmingham, for they will derive from it habits of thought, special insight, broad views and sympathies which cannot fail to be useful to them as producers themselves, or the superintendents of those who produce. But, whatever outsiders may think of it, there does not seem much danger that the study of physiology will be too lightly regarded by the medical student in these days. Its definiteness and lucidity appeal with special force to him, and its mechanical methods take possession of his mind at a very plastic age; and, indeed, the risk would seem to be that physiology, in conjunction with anatomy and pathology, may materialise his conceptions, bind him down to a purely mechanical interpretation of the universe, and so cause him to lose sight of truths which are not less valuable than physiological principles to the medical man. It is expedient that from time to time the medical student should be indused to raise his eyes from the test-tube, the microscope, or the galvanometer, and to fix them on a wider horizon; and, mindful of this expediency, I would ask you to allow me in what I have further to say this evening to point out to you that man, after all, stands above physiology, and that there is that in his nature which mechanical methods can never enable us to reach or appraise.

The revelations of comparative anatomy and the brilliant discoveries that we owe to experiments on animals have assuredly inclined us to take an animal view of human nature. Every tissue that enters into the composition of man's body has its analogue in the bodies of creatures far beneath him in the scale of being. Every organ with which he is endowed is seen in greater or less elaboration and completeness in the beasts that perish. Every function he exhibits is displayed in a rudimentary or fully evolved state by inferior organisms. And yet, notwithstanding all homologies and resemblances, there is a great gulf fixed between human and animal nature. Man, the breviary of all bygone evolution, stands pre-eminent in form, structure, intelligence, and, above all, in the possession of a moral sense. In his power of assuming the erect attitude and of extending and fixing the hip- and knee-joint when standing, in the development of his hands into instruments of prehension, and in the freedom of movement of his upper limbs, in the perfect poise of his head on the summit of the spinal column, in the high degree of sentiency conferred on him by his exposed integument, in the modelling and mobility of his face as an instrument of expression, man presents characteristics that are entirely his own. And in a still higher degree is he differentiated from any animal by the mass and structure of his brain, which (although exceeded in absolute weight by the comparatively simple brains of the elephant and whale, whose huge body mass demands large sensory and motor centres) is, in his civilised state, more than three times the weight of brain of the highest anthropoid ape—the animal that most closely approximates to him—from which again it is even more widely separated by the proportional development of its parts, by the complexity of its cortical structure, and by its richness in association centres. But it is by what are incorrectly spoken of as the functions of the brain, by his mental faculties, his reason and intelligence, that man is distinguished from animals far more than by visible cerebral differences. I say these are incorrectly spoken of as the functions of the brain, for they certainly cannot hold the same relation to that organ that movement does to the muscles or bile to the liver. The brain is a sensori-motor machine, concerned with the storage and liberation of energy, and it is contrary to the principle of the conservation of energy that will, or emotion, or ideas, which are immaterial agencies, should interfere with movements in nervous arrangements and disturb the balance between work done and the diminution of the intrinsic energy of the body and its contents. Nothing can be derived from motion but another motion, nothing from mental process but another mental process; and thus the facts of consciousness can never be explained by molecular changes in the brain, and all that we can do is to fall back on an hypothesis of psychophysical parallelism which assumes concomitant variations in brain and mind. There is a physical universe of which only a fragment is known to us. There is a psychical universe in a corner of which we live, and move, and have our being. We may picture these to ourselves as circles which impinge on each other at the first moment of conscious existence, which intersect more and more as life goes on, their largest intersection (including but a small segment of each) being reached when life is at its full, and which then withdraw from each other as old age sets in, and part company at death. But whatever image we may adopt, we must hold fast to the truth that mind and matter are distinct essences, irreconcilable in their nature, though mysteriously accordant in their operations; that only in the elementary processes of mind made up of sensory and motor elements has correspondence with physical changes in the brain been traced out; and that we are still without any cerebral explanation of those higher powers of mind which exalt man above the animal creation.

Without attempting even to sketch the intellectual and emotional characteristics which place human nature on a pedestal above all other nature, I would direct your attention specially to that moral sense to which I have already referred as a peculiarly human attribute, and which, as Professor Huxley has insisted, is not derived from the struggle for existence, but implies a reversal of the action that avails in that struggle. In his capacity as an animal man has achieved his success in the world by his superiority in certain qualities which he shares with the tiger and the ape; by his cunning, his power of imitation, his greed, his rapacity, cruelty, and self-assertion; but in his capacity as a social animal he has advanced from savagery to civilisation by the suppression of these qualities and the substitution for them of others of a very different kind—qualities such as sympathy, self-restraint, justice, and benevolence, of which we have no hint in any level lower than his own. In his advance into manhood he has created for himself an artificial, a social, an ethical atmosphere which he alone of living beings breathes. In his progress in civilised polity he has prepared for his species an ethical environment which powerfully modifies its characteristics and tendencies, and is in turn modified by it. In that environment what we call goodness or virtue is the potent force, and the survival of the fittest becomes the survival of the best—the survival, that is to say, of those best adapted not to material but to moral conditions of existence. A new standard has been set up. Better and worse mean no longer more or less adaptation to geographical surroundings for the time being, but more or less conformity to laws, rules, precepts, and sentiments of artificial origin and of everlasting obligation. Now, if we allow that certain rudimentary virtues, such as temperance or moderation in the indulgence of appetite and industry, may be of advantage to the individual and the race in the competition for life, it must still be maintained that morality proper only emerges when altruism, sympathy, or a desire for the happiness of others appears on the scene, and that in morality proper an entirely new principle is involved. Even if we allow that the moral sentiments, like other natural phenomena, have been reached by a process of evolution, we must still bear in mind that the immoral sentiments must have had the same origin, and that our preference for the one over the other can be found only in human intuition and experience. Moral sanction has not grown out of environment or outer relations or circumstances, but out of an element in human nature, the accumulated influences of individual men, and the initiative of certain great men who have from time to emerged from the mass of mankind and become active agents in differentiating the ethical environment around them and in all time coming. Everywhere in human history we discern not only the slow accretion of morality by the impalpable additions made to it by submerged millions, but its sudden upheaval from time to time by the workings of the spontaneous impulses of great men whose names stand for ever prominent.

This immensely energetic quality, greatness, genius, or heroism, to which so important a part is assigned, is a peculiarity, a departure from common form, and we must carefully distinguish between the causes which produce it and the causes which tend to preserve it. It is not an adaptive modification. It may be fostered, pinched, or blighted by environment, it is not produced by it. Its origin is to be sought in those internal molecular changes which give rise to variations. It is a divergence from the parent type due to influences operating upon the ovum and the embryo, and is independent of external conditions, physical or social. Neither in descent nor in personal vicissitudes is any adequate explanation of it to be discovered. The motherly theory of greatness, which only removes the difficulty one

generation, does not bear examination in detail, for it can be shown that some great men had inferior mothers, and that those of them who had superior mothers differed from them just in those properties that made up their greatness; and the climatic theory is equally untenable, for greatness has not been tied down to any special meteorological conditions, but has appeared in all parts of the planet suitable for the habitation of the best human breeds. It is a sport, a new departure, what we call a spontaneous because an inexplicable variation—inexplicable at least by the biological causes which lie nearest at hand and which we commonly invoke. In every series of living beings that we contemplate, we are accustomed to look for the transition from term to term, by minute and insensible differences, or continuous variation; but we must not shut our eyes to the truth that in such series there are to be noted breaks, or gaps, filled by no transitional forms, but leaps, as it were, by discontinuous variation. Breaches of continuity undoubtedly occur in the evolution of living beings and of particular organs and instincts, and the recognition of such breaches and abrupt or transilient variations, as Mr. Galton has called them, removes a stumbling-block in the way of the acceptance of the evolutionary theory. There are in the animal kingdom many mechanisms and devices useful to their possessors in a state of perfection which while only partially developed must have been not only useless but disadvantageous encumbrances. Now it is clear that with reference to such structures natural selection could have afforded no protection during their imperfect and preparatory stages while they were advancing by minimal steps, and that we can only account for them by supposing that they appeared at once, fully formed by a volt of discontinuous variation. Environment is continuous and varies merely in degree, but species and organs are discontinuous and differ in kind; and it is difficult to understand how the former can be the cause of the latter. In studying discontinuity, realising that the missing links are infinitely more numerous than the existing ones, we begin to suspect that the chain of being may resolve itself into a series of rings disconnected but still somehow related, as evidenced by their form, size, proportion, substance and arrangement.

In plant life we have many illustrations of variation due to environment which disappear when the environment is changed, as, for instance, in the alterations which present themselves in marsh plants grown on dry land, and in lowland plants grown on chalk downs or mountains, and of spontaneous variations due to a deeper cause and unaffected by changes in environment, as, for instance, in the copper beech, an unaccountable sport from a green beech in a German forest which retains its coppery hue in the most widely different soils and climates, and the weeping habit in the elm and ash, a novel trait without environmental justification which is perpetuated under diverse circumstances. What in environment or in immediate ancestral conditions have we to thank for the double rose or Williams pear or Japanese chrysanthemum? It is all very well hypothetically to ascribe such variations to over-nutrition or under-nutrition or to say that variations group themselves in the probability curve, but the facts remain that certain individuals have stepped out of the parental type while innumerable other individuals also over- or under-nourished have proved true to it, that variable plants never cease to vary, that similar variations occur under dissimilar conditions, and that dissimilar variations arise under conditions nearly uniform.

In the animal kingdom variations of all kinds are abundant and multiform some of them obviously due to surrounding conditions and some, as far as can be ascertained, not so; some built up by gradual, almost impalpable, increments, and some presenting all at once a large degree of originality. Our canine friends are a highly varied group, probably descended from several wild species, and amongst them we observe slight modifications due to habitat and selection of variations which can be traced up in diminishing proportion through a line of ancestry. With such variations we are familiar, but the sudden appearance of an Albino in a dark-haired family is a somewhat startling phenomenon, which apprises us, as Huxley said, that "nature is often brusque and makes leaps and bounds." Of this sort of advance examples are afforded by the hairy moor-hen, in which the feathers are, for no conceivable reason, destitute of barbules; by the Angoras amongst domestic animals—the goat, the cat, and the rabbit—in which the hair is long and silky; and by the "rhinoceros mice" found at Taplow, which were entirely naked and without hair except a few dark coloured whiskers. These variations were certainly not due to selection or environment any more than are those which we see daily in the human families of our acquaintance, in which a number of children born of the same parents and reared in practically identical conditions differ from each other in a remarkable manner in size, build, colour and mental capacity—in which, perhaps, an idiot and a monster (and we must remember that, as St. Hilaire taught, there is order in abnormality) are growing up side by side with a genius and a beauty.

As regards vegetable and animal variations alike—and among the latter we must include the great man—there are, it must be admitted, a large number for which no exciting cause can be discovered, and which must therefore be classified, provisionally at any rate, as spontaneous or accidental. Discontinuity in variation, of which species may be a standing monument, is not certainly in the environment; so we are bound to look for it in the living thing. And in this connexion it is well to remember Darwin's remark, that as regards variation the nature of the organism is far more important than the nature of the conditions. Those variations referable to the living being Darwin in the first instance described as due to chance, an incorrect statement, as he allowed, merely intended to cover ignorance; and to-day we are still obliged to speak of them as fortuitous. Taking the universe in its entirety, regarding all as "parts of one stupendous whole," such variations are included in the unity of the cosmos. But the cosmos is a wide word, and there is no inconsistency in holding that variations, although summed up in the nature of things, are not interpreted in the organic nature by which they are immediately surrounded. No doubt in a strict sense the great man is the product of his antecedents, but these antecedents in the absence of the great man himself could not have afforded any clue to his personality. Causes become apparent in their effects; and the great man being not a simple mechanical phenomenon, but a complicated problem of conscious life, is not to be explained by a reference to elements of a different order containing no trace of his characteristics. The combination of these elements in such a manner as to produce this particular result has to be explained, and that can only be done by taking into account the result itself. All ultimate explanation must look to the end and read back the nature of the particular result into the remotest antecedent. It must concern itself with the whole evolution, and rest on proof that there is an organic unity binding the whole process into one and making it intelligible; that there is evolution and not merely gratuitous metamorphosis. But of remote causes of this description science in its still purblind state does not take cognisance, and we need not, therefore, be surprised to find the most recent authority in this department, Mr. Bateson, whose compendious researches are a rich dower to science, dismissing the subject in these words: "Inquiry into the causes of variation is as yet in my judgment premature."

It is clear that variations, the cause of which are as yet inscrutable and beyond investigation, may still be conveniently spoken of as spontaneous, and the great bulk of variations fall under this description, while as regards these variations which, it is alleged, can be traced to diversified external conditions, to food supply, climate, use and disuse, pressure, &c., there still remains to be taken into account, when allowance has been made for all these, the power to vary, and to vary in such a manner that the symmetry and general balance of the organism are maintained. We are obliged to fall back upon a law of reproduction, involving, not only resemblance to parents, but individual difference from them; upon covert causes infinitely remote, setting up a tendency to vary as well as to repeat; upon a duplicity of the original vital impulse, whensoever derived, operating upon the totality of living beings from the commencement. And if we accept this view, and regard spontaneous variation as one of the fountains from which have sprung those beneficial differences which natural selection has adopted and accumulated, and if we connect it with established facts as to the order in which animal forms, and more especially vertebrates, have appeared in the long history of the fossiliferous crust of the globe in definite sequence, beginning with the lowest and culminating in man, we come to see something of "an increasing purpose" running through the ages. We may come even to acknowledge that evolution is a continuous revelation and variation a perpetual miracle. "The flowers," said Carlyle,

"are eyes looking out upon us from an inner sea of beauty." May not the great man be a flash of illumination from an unsearchable firmament of wisdom?

But whatever his origin, the great man is an indisputable fact recurring with greater or less frequency. A wonderful complex of higher faculties not attributable to inheritance from either parent, or from any more remote ancestor, or to the play of investing forces or events, he comes with peculiarities which distinguish him from the average man and enable him to re-model the average man more or less extensively and powerfully. Selected by his environment, and moulded and biased by it in some degree in his plastic youth, he does not owe to it his essential qualities.

How little the genesis of the great man depends on his personal environment may almost, I think, be inferred from the histology of the brain. At the sixth month of fœtal life the cortical substance of the cerebrum contains neuroblasts equal in number to the cells present in it in its most mature state, that number being computed at 1200 millions. True, an enormous elaboration of structure subsequently takes place. The neuroblasts grow in size and change in shape, become nucleated and nucleolated nerve cells in which pigment is deposited. The cytoplasm of these nerve cells changes in chemical constitution, as shown by its reactions to staining agents. The cells undergo polarisation, and the neurons and then the dendrons are sent out. The medullation of different nerve fibres at different rates takes place, and there is a multiplication of tangential nerve fibres. The brain goes on expanding and becomes more complicated up till adult life, but whenever the number of its cells is determined its groundwork may be said to have been laid down and its ultimate plan to have been outlined. Now genius or greatness is unquestionably involved in the ground plan and elevation of the brain, and when it appears, therefore, it must have been potentially present at the sixth month of existence, when the muster of neuroblasts is complete; but up to the sixth month of existence the environment is uterine and of a singularly uniform description, affording no conditions equal to the differentiation of the genius from the average man.

In primitive times a great man born into any tribe or clan must have been to it just what a new and advantageous structural variation is to an animal. His greatness, courage, ingenuity, insight, and energy must have helped it in its tribal conflicts and conduced to its survival. And although, taking the tribe as a vital unit, the greatness of the great man could not be perpetuated as advantageous structural modifications are, yet might it be very far reaching and, indeed, permanent in its effects. The example of the great man would be imitated by members of the tribe who were not great, a process which we see in operation to some extent amongst animals of gregarious habits, and his greatness would live in the traditions of the tribe and, in a manner exclusively human, influence the conduct of unborn generations, and thus determine at many critical epochs their tribal development. And in times not primitive the influence of the great man becomes more and more apparent. History is indeed a record of its interactions with the existing temperament, prejudices, and ideals of a people in certain physical conditions. In every individual life there are decisive moments when a choice has to be exercised that determines the whole future course of its current, and in every nation's life there have arisen decisive men who, by precipitating war or revolution or reform, or by their inventions, discoveries, or ideas, have irrevocably changed its career, have become factors in its environment, and deflected its advance. Would the United States of America have been what they are to-day had Columbus and Washington never lived? Would Europe be mapped out exactly as it is had Napoleon never aspired? Does not Italy owe its unity to Cavour and Garibaldi, and Germany its empire to Bismarck and Moltke? Can we believe that our insular position would have given us the sea power we possess had men like Drake, Hawkins, Frobisher, Blake, and Nelson never grown up on our shores? Have not men like Frederick the Great and Cromwell determined great changes in national life? Have we not seen nations stagnating for want of great men and bursting into vigorous efflorescence when a group of them appeared? Is it possible to believe that the differences between one nation and another, whether in intellect, commerce, arts, or morals, depend simply and solely upon physical circumstances or geographical position? Can we credit it that, had the original stock of our English people been planted in the malarious forests of Benin, their descendants would have been to-day black, bloodthirsty, and treacherous savages, rejoicing in Ju-Ju, and that the late subjects of King Drunami, had their progenitors been located here, would have been now a wealthy, humane, and prosperous white people? Surely we must keep in mind the vastly preponderating influence of racial constitution and the manner in which this is differentiated from within as well as from without. We see nations stimulated and biased in every direction by their own offspring, and bearing indelible traces of the great men who have sprung up within their borders, and who have often exerted an influence far beyond national barriers. There is no Englishman to-day who does not in his thoughts or conversation bear the impress of him who sleeps at Stratford-on-Avon, who came like a meteor, but has stayed like a sun, the only genius who ever made universality a success. Scotland still stiffens with the fierce rigidity of Knox, and melts into tenderness at the songs of Burns. To say nothing of the founders of religions, men like Luther and Loyola have swayed mankind under the most diverse geographical conditions. Mr. Herbert Spencer is himself a conspicuous refutation of his own theory, for the influence of his truly original intellect, the making of which is not to be recognised either in the long story of the race or in the social state into which he was born, has proved a leaven in science, has permeated into the general thought of the time, and permanently affected social relations. So, too, Darwin has brought about an unexpected and radical change in intellectual government and created a critical epoch in science—a period of rapid evolution after an interval of quiescence. Would it not be correct to say that Arnold by his religious idealism has transmogrified the higher education in England? Hours might be spent in enumerating and defining the specific influences that great men have exerted on national evolution—men like Julius Cæsar and Marcus Aurelius, Charlemagne and Hildebrand, Raphael and Michael Angelo, Milton and Goethe, Voltaire and Rousseau, Gibbon and Hume, Bacon and Newton, Comte and Mill, Davy and Faraday, Ruskin and Carlyle, Watt and Stephenson. I shall content myself with one illustration near home, and I am sure I shall not transgress the rule laid down by the founder of this College, and worthy of all acceptation, that politics are not to be referred to in its precincts, if I say that we could all name a great name, a living statesman, an unmistakable product of Birmingham, who has transcended his antecedents, and by virtue of his individual endowments has improved the environment for all who live in his native city, has quickened our national life, and, setting at nought geographical restrictions, done something to consolidate a world-wide empire.

In the history of medicine every chapter might have as its heading the name of a great surgeon or physician. In the biographies of Linacre, Sydenham, Harvey, and Jenner distinctive steps in advance may be measured and connected with personal initiative; and in every branch of medicine and surgery as they are to-day, excellent though the work accomplished by the rank and file may have been, a few great pioneers have determined and guided progress. In my own department, neurology, it is certain that progress has hinged on the genius and labours of a few great men—Charles Bell, Marshall Hall, Claude Bernard, Brown-Séquard, and Hughlings Jackson; and I cannot conceive that it would have been in the forward position in which it is had anyone of these been missed out. Neither can I conceive that had any one of them failed to appear, some understudy or *alter ego* would have been supplied by the geographical and social conditions of the period to fill his place. At this hour we have amongst us in the circle of our profession a brilliant example of the great man who changes for ever the environment in which he finds himself. It will not be gainsaid that Lord Lister has once for all and profoundly influenced the practice of surgery and medicine. Without a forerunner except Pasteur, by methods strikingly novel, in the strength of a fresh variety of intellectual power, he has reached discoveries which have already given check to the cosmic process in certain directions, and which must ultimately benefit the whole human race.

We have spoken of the influence of greatness in the creation of environment, but we must not overlook the less conspicuous but more widely diffused influence of men who are not great but still possess individual initiative. Every man may be a great man in a small way, and leave his social environment better or worse than he found it. The arc-light, like genius, lifted aloft, scatters its radiance afar, and, like genius, is apt to flicker and splutter in doing so; but the

glow-lamp, like the patient drudge, in its lower and narrower sphere, emits a useful and a steadier light, one glow-lamp differing from another in glory. And so each average man may not only fill his average place, but, by virtue of his little individual talent, do something to increase or diminish the momentum of the social movements that are going on around him and bring about, no matter on how small a scale, a recasting of social relations. For each man is a variation, even if only in an infinitesimal degree, from all the men who have preceded him The zoological man in him is a settled affair, but the human constituent is still in a state of flux, and it is for the new combinations that it effects that we are constantly watching with such intense interest. Variations are, as we know, more frequent under domestication than in a state of nature, and have a far wider range in the civilised than in barbarous races of mankind. In the faces of our own country people we see far greater anatomical differences, a far richer play of expression, than is to be observed amongst negroes; and as regards some of the lower types of our species, it would almost take a shepherd with his eye trained in ovine physiognomy to distinguish one man from another. But the face is a screen on which are projected the dioramic—I might say the cinematographic—changes of the brain within, and it is the brain that is the great theatre of human variations in these days. Without referring to its intimate structure we can see in the fissuration of its surface that it has in every individual a personal identity of its own, while in the products which accompany its functional activity we find idiosyncratic differences in every case. Sensations, ideas, emotions, active tendencies are the flora and fauna of the brain, and these, while subject in the main as regards their general character, their form, order, and associations, to the influence of heredity and environment, are yet constantly exhibiting new growths and features, random and discontinuous variations. We have amongst them many familiar types, but we have also startling novelties, hideous monstrosities, and beautiful and useful developments. And in this flora and fauna of the brain selection is ceaselessly at work—environmental selection—the climate for them is made up of emanations from other brains and what may be termed artificial or deliberative selections, which I wish to emphasize as the basis of that mental discipline which is so essential to all ethical life. We can within limits regulate our own brain crop. We can weed it and fertilise it, and we can do this by an exercise of that voluntary power which is our proudest attribute. Thousands of ideas shoot up in the mind for one that survives and becomes operative, and the one that survives does so because it is selected by the will. The real force of ideas, said Fichte, is not in the ideas, but in the will of the person who selects them as his.

I do not forget, of course, that the very existence of this will, for which I am claiming such autocratic power, is more and more ingeniously disputed as mechanical physiology advances; and you will, I am sure, be relieved when I tell you that I do not here propose to embark on another Arctic expedition or balloon voyage into the murky polar regions of determinism and free will. But as a practical physician I would just say that I look upon free will as as much a need of the individual and of the race as is fresh air, and that I should regard as a pestilential calamity any widespread abandonment of a belief in it. A sporadic case here and there does not much matter, but anything like a general lapse into downright predestinarianism must mean the extinction of ethics and a reversion to that cosmic process out of which we have with so much pain and effort worked our way. This argument—the argument *in terrorem* founded on the supposed consequences of a doctrine—is no doubt open to objection, but it is more so in relation to secondary and derivative beliefs than to those that are primary and fundamental. Mr. Balfour has made effective use of it in relation to Naturalism, and an appalling picture might be drawn of the results of universal determinism. The illustrations which we possess of its partial ascendancy in Mohammedan races—I say partial, for fatalism is never thoroughgoing—are sufficiently forbidding; and it may perhaps be a sufficient condemnation of it on the present occasion if I point out that its complete triumph would involve the disappearance of medicine as an art. It will be well for you during your curriculum to be on your guard against insidious suggestions of wholesale automatism, for there can be little doubt that the study of reflex action, investigated as it almost invariably is from below upwards, and not from above downwards, predisposes to that faith—an enervating faith—which reduces man to a mere pith-ball in the jet of the fountain of events, helplessly tossed aloft, heedlessly falling, ceaselessly moving, as if animated, and yet the mere plaything of external forces. Apart from all the mystifications of logic and clarifications of science we have just as good evidence for the freedom of the will as we have for our own existence. You will feel and know, when you come to think of it, that you are not, as Münsterburg would have you believe, a mere sequence of ideas, but have the choice amongst these, and that you are bound to exercise that choice in such a manner as to make your calling and election sure—utilising your gifts, recognising your responsibilities, taking advantage of your variations, and being responsive to your environment, thus fitting the place in which you find yourselves. Hold fast to the importance of the individual. Do not worry yourselves about the insignificance and evanescence of man.

You are here in an animal world and an ethical society; you are variations (each of you is a variation), the outcome either of ancestral conditions or of an inherent vital impulse; and you have been selected, you have not been found unfit for survival and condemned to perish. You have escaped the perils of the embryo, of gestation, and parturition; you have fought your way through the legions of pathogenic bacteria that lie in wait for infancy and childhood; you have survived the breakneck hazards of boyhood, and even football has not put an end to you; you have not as yet been devoured by the examination beast of prey; you have proved yourselves adapted to the climatic conditions in which you find yourselves, and have been able to provide yourselves with ample nourishment; you have struggled up into existence so far, and have shown that with individual traits in every case you are all more or less adapted to your environment. And now, selected, vaccinated, educated, you are about to enter upon an entirely new environment as students of medicine, an environment which will again select and sort you, and perhaps in a few instances—I trust a very few—reject you altogether; and which will at the same time remodel those of you whom it selects, and prepare you for still another and more trying environment which you will enter when you go forth from this College as practitioners of medicine. And in that environment by which you are now encompassed, and still more in that larger environment that looms before you, you will, I predict, discover that harmony with your surroundings and happiness for yourselves are promoted by keeping constantly in view the ethical nature of man, on which I have this evening insisted. For you the era of the "ape and the tiger," of tooth and claw, is past and gone. The instincts and promptings that were uppermost in that epoch, its selfishness, cruelty, ferocity, and destructiveness, are still to be seen at work in the human struggle for existence on every hand, and still assert themselves with greater or less vehemence from time to time in every human breast; but in civilised beings they are dominated and held in check, as we have seen, by a new principle that has intruded into human life, the ethical principle creating a sense of duty and enjoining goodness and virtue. And this ethical principle or categorical imperative of duty, as Kant called it, or conscience once awakened in a man can never slumber again, but if neglected or violated becomes itself the source of pangs worse than those which are attendant on the natural order of things. For your own advancement and happiness in life you cannot too soon cease to make an idol of the natural man, for the profession you have chosen is the outcome of quite another cult. It is the highest expression of the humanising process, as opposed to the cosmic process, and its great aim is to assuage the sufferings and heal the wounds of those who have been worsted and trodden down in the struggle for existence, and to mitigate the asperity of that struggle. In the cosmic process pure and simple the medical man is a troublesome meddler, promoting the survival of the unfittest, and protracting the miseries of the condemned. At a recent meeting of the Medico-Legal Society of New York, it was gravely argued that suicide is, under certain circumstances, to be professionally recommended, and that in cases of incurable, fatal and agonising disease the physician should be empowered to terminate life by what is designated "homicidal euthanasia." If you would justify your professional existence to yourselves, you must early put aside such extravagances and attune your ears to those ethical harmonies which mingle with the fierce discords of

the fight, and which happily grow more and more audible as time rolls on.

I admit that it is not always easy to pay due allegiance to ethics. It takes some courage in those who have contracted the material tenets and tendencies which elementary studies in medicine are apt to engender, to admit, even in the company of Huxley, that the cosmic process has broken down and that we must go back to ante-evolutionary principles. It requires ethical strength to be ethical. Revolt has always had a charm for the young. Agnosticism has almost come to be regarded as a sign of intellectual virility, reverence as weakness of the knees. But ethical facts, which even agnosticism cannot relegate to the category of superstitions, stare us in the face, and an early recognition of their significance will help us to accommodate ourselves to our situation. Renunciation, self-discipline and respect for the rights of others and of the community not only save us from blank despair, but ensure the easiest adjustment to the existing state of things. To the medical man in actual practice a perpetual remembrance of man's ethical nature, of that in him which transcends the animal and makes for righteousness, of the union in him of *l'esprit divin* with *la bête humaine*, is of paramount importance. He has to minister to more or less ethical beings who will not be content to be treated as bits of mechanism, and the highest diagnostic skill and therapeutic precision will not save him from failure if he lacks sympathy with human suffering and frailty, and is unable to understand the emotional as well as the muscular heart. In his professional work, too, he hourly requires the support of ethical principles in himself, and of an ethical outlook to guide him amongst the subtle moral problems that are submitted to him and to support him in his resistance to the appeals of the natural man who is still the slave of his animal instincts and destitute of spiritual ideals.

Unhappily, the loose talk of the period and the literature of the day too often pander to the natural man, and extol the wisdom of following nature. It is fashionable not to be straitlaced, and great writers have not hesitated to tell us that it is the libertine who has grasped the true philosophy of life and that it is foolish to plague ourselves with remorse for acts dictated by desires of natural origin. One of our most powerful novelists, Mr. Hardy, has frequently shown a tendency to assimilate the moral to the natural, and, as Professor Seth, the present highly-gifted incumbent of the Chair of Logic and Metaphysics in the University of Edinburgh, points out, has in a conspicuous instance in his "Tess of the D'Urbervilles," sought not only to extenuate vice, but to transmute it into virtue by quoting for it a feral sanction and ensample. Tess, fallen from her innocence, is wandering in the woods, a prey to her own reflections, "terrified without reason" by "a cloud of moral hobgoblins." "Walking amongst the sleeping birds in the hedges," writes Mr. Hardy, "watching the skipping rabbits on a moonlit warren, or standing under a pheasant-laden bough, she looked upon herself as a figure of guilt intruding into the haunts of innocence. But all the while she was making a distinction where there was no difference. Feeling herself in antagonism, she was quite in accord. She had been made to break an accepted social law, but no law known to the environment in which she fancied herself such an anomaly." Now the meaning of this plainly is that the social or moral law is a mere convention, and that the true code of conduct is to be found in the woods and fields, a code in which, as I need scarcely indicate, the depths of iniquity may be legitimatised. A convention, no doubt, the moral law may be said to be, framed as it has been out of the tacit or verbal agreements of assemblages of human beings (and in the same sense some so-called animal instincts are conventions), but it is the convention that holds society together and prevents universal anarchy, and, therefore, it is lamentable to find it seriously impugned even by men of science. M. Letourneau, for instance, secretary to the Anthropological Society of Paris, contemplates with complacency the slow disintegration of the marriage tie, as evidenced by the gradually increasing number of divorces and illegitimate births in all civilised countries, and predicts that while monogamic marriage may continue to subsist, because the balance of the sexes makes it almost a necessity, it will be largely emancipated from legal restraints and become a free union, freely contracted, and, if need be, as freely dissolved. As a corollary of this freedom of marriage M. Letourneau tells us that the family tie must also disintegrate. This final collective unit of society—the family—must be broken up, and a larger collective unit—the State, the district, or the commune—must assume the *rôle* of guardian and educator of children.

I do not introduce to you such mischievous nonsense for the purpose of refuting it—that seems superfluous—but to illustrate the inevitable and pernicious consequences of including man in the strictly natural order of things and ignoring his moral obligations and to enforce my thesis that medical men are now more than ever in need of sound and definite ethical standards. I shall not be wrong in saying that, as the result of the wide dissemination of teachings and opinions such as I have quoted, the medical man is now frequently confronted by singularly confused and distorted moral views, the consequence of a kind of ethical astigmatism that is abroad. He is invited to give a professional prescription for incontinence or infidelity or a scientific indulgence to bow down in the temple of the great goddess Lubricity. He is even calmly approached in the hope of securing his assistance in a breach of the criminal law. It is not for him to be extreme to mark what is done amiss, for he comprehends better than others the infirmities of the flesh, and his pity shelters what his judgment condemns. It is not for him to scruple to adopt measures to prevent the spread of disease because, perchance, these measures might confer impunity on vice. It is not for him to censure or reproach those who seek his aid, however obviously their maladies may have arisen out of their own transgressions—that they are suffering is a sufficient passport to his skill. But it is for him when occasion arises to uphold the moral law, which is a bulwark of health as well as the chief corner-stone of felicity, and neither by connivance nor silence to countenance any infringement of purity of life. It is for him to inculcate, when the season serves, the injunction that closes the pathetic epitaph written by a wayward son of genius for himself:

> "Know, prudent cautious self-control
> Is wisdom's root."

Well, gentlemen, it only remains for me, on behalf of the seniors of the profession you have adopted, again to greet you on passing its portals, and in doing so we have nothing but words of good cheer to speak to you. We shall not, assuming the routine attitude of veterans toward beginners, tell you that

> "We, nearer to the wayside inn
> Where toil shall cease and rest begin,
> Are weary thinking of your road."

Rather we would assure you that we regard with envy the pilgrimage before you—a pilgrimage in which weariness is forgotten in the absorbing interest of the route—and that we would gladly share with you your toils, in order to be partakers in the enlightenment that is in store for you. We seem to be on the eve of great discoveries. The universe is not played out. The globe is not yet ripe for its fall. The film of organic matter that mantles on a portion of its surface is not an exhausted ferment. The possibilities of the future are infinite, and amidst the possibilities of the near future are rapid advances in our knowledge of disease and in our power of preventing it. And even if the discoveries we anticipate do not come in your time, you are still to be envied, for the career you have chosen is a beneficent and a happy one. It may not bring you the rewards most coveted in these days of exorbitant luxury—piles of jaundiced metal for yourselves and bits of glistening carbon for your wives—but it will yield you an honest competency and the satisfaction of knowing that you have earned your wages. It may not raise you to social distinction, but it will reveal to you in time that there is one thing more precious than fame, and that is obscurity with work well done. Even the sad circumstances under which you must pursue your calling will not rob it of its charms. You will move daily amidst the dolorous shades of disease and will become familiar with the pallid visage of death; you will see more of sorrow and anguish than other men, and yet you will not abandon faith in life, nor will the springs of hope be frozen within you. In your incessant conflicts with the powers of darkness you will lose the dread consciousness of their stupendous power. In your practical efforts to do good, you will come to perceive "a soul of good in things evil." By the very fatigues and hardships of your lot a keener zest will be added to existence, for that bread is sweetest that is eaten in the sweat of the face. "The sovereign source of melancholy," says a brilliant Transatlantic philosopher, Professor James, "is repletion." "Need and struggle are what incite and inspire us; our hour of

triumph is what brings the void. Not the Jews of the captivity, but those of the days of Solomon's glory, are those from whom the pessimistic utterances of the Bible come." It is idle men or men of studious and reflective habits that *tædium vitæ* chiefly visits, not those who have to wrestle with strenuous responsibilities. No doubt men of melancholy temperament, constitutionally insusceptible of happiness, enter the medical profession now and then; no doubt weakly members of it break down here and there under the trials and disappointments that are incidental to it, and become a prey to misanthropical gloom; but, taken as a whole, I maintain that the medical profession is, of all professions, the most cheerful and contented. Meetings of medical men are, in my experience, all but invariably characterised by geniality and good humour, notwithstanding acute differences of opinion. The doctor's home is for the most part bright with domestic sunshine. The doctor's heart is never soured, but overflows to the last with "the milk of human kindness." I could draw a contrast, but I refrain. Let me congratulate you, gentlemen, on your adhesion to what is an anxious and laborious, but an ennobling and satisfying profession. "The claims of the future," said Lord Beaconsfield, "are represented by suffering millions, and the youth of a nation are the trustees of posterity." The future is yours. The suffering millions cry aloud for help. In the faithful execution of the trust confided to you, you will reap "an exceeding great reward."

An Introductory Address

ON

THE NECESSITY FOR SPECIAL EDUCATION IN TROPICAL MEDICINE.

Delivered at St. George's Hospital at the Opening of the Winter Session, Oct. 1st, 1897,

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LECTURER ON TROPICAL DISEASES AT THE HOSPITAL.

GENTLEMEN,—I have been asked by the authorities of this school to speak a word of welcome to those of you who to-day commence your systematic medical studies. I congratulate you on two things—one, your choice of medicine for your profession; the other, your choice of St. George's for a school. Though the medical profession is by no means a bed of roses, perhaps more than any other it is one which to him who follows it in the proper spirit is full of good things. It is intensely interesting; it is a recreation as well as a study; its influence on society is rapidly increasing; it is a fairly satisfactory means of getting a livelihood; and, above all, it is full of boundless opportunities for doing good. What reasonable man could wish for more? As regards your school, apart from its associations with the past—associations such as few can boast—I can confidently claim that of all the metropolitan medical schools none have shown of late years more energy, greater determination to keep with the times, or more far-sighted enterprise. Nor have the students been unworthy of their school, for St. George's men are known all over the English-speaking world as accomplished physicians and surgeons. More than this, and in a greater measure owing to the high tone of the school and of its social life, which has been carefully cherished by the teachers, they are known as good citizens, brave soldiers, loyal and devoted public servants, and, even better than that, as gentlemen. You come therefore to an *alma mater* of honourable repute; it must be your care to maintain and, if possible, to add to this reputation. In congratulating you on your choice of a school I do so on the strength of what, since I had the honour of being connected in a humble way with St. George's, I have observed here for myself. I have been especially struck with the energy I have already referred to and that foresight in the management. In every department I find these. Naturally the institution of a lectureship on tropical medicine has appealed to me more especially; but this is, I see, only one evidence of the spirit that runs through the entire management. Laboratories, museum, teaching appliances, and teaching are all of the best and most advanced description; and I am especially pleased to remark that the students, so far as my opportunities have enabled me to judge, are not slow to avail themselves of their exceptional opportunities. The mere fact of my being asked to address you on this occasion, I believe, is but another evidence of the desire of the authorities to advance, to extend, and to improve the training they offer. They seem to be impressed with the desirability of something being done for one of the neglected departments of medical education, for tropical medicine, and as they know the interest I take in this subject I have an idea that this is the reason why I have been asked to come here to-day. I fancy I am expected to ventilate the matter. This being so, the first remark I would make is, that the systematic teaching of tropical medicine, ere many years are over, will be universal in our medical schools. Those who can read the signs of the times and who are best able to judge regard this as inevitable. Why? Because our country is the centre of a great and growing tropical empire; and, second, because tropical disease in many respects is widely different from the diseases of temperate climates, which, practically, are the only diseases about which at present the student receives instruction. There are dozens of diseases more or less special to the tropics—diseases which demand special knowledge for their diagnosis and successful treatment. Rather over a fifth part of the medical graduates of Great Britain and Ireland practise in warm climates or, being in the army or navy, may be called upon at any time to do so. Surely if tropical practice is so different from practice here it is highly desirable that this vast army of medical men should be properly equipped for their special work. It may be said, and has been said, that as the principles of pathology and therapeutics are the same the world over they apply in India as well as in England. Quite true. But we have not to do merely with the principles of pathology and therapeutics. As a practical profession we are more concerned with their application which is quite another matter. Similar objections might be, and formerly often were, raised about giving special instructions in such branches as eye disease, skin disease, and so forth, but the advance of our art and the requirements of the public have long ago swept aside these objections. So it is now with the teachings of tropical medicine as a special subject, and so in the near future it will be. A principal reason why hitherto there has been so little done in this matter is this. Candidates for medical degrees know very well that they will not be asked any questions about tropical disease by their examiners, and so they have not demanded instruction on this subject. And the reason why questions are rarely put on tropical medicine is that the leaders of the profession, those who man our hospitals, who fill the teaching chairs, who examine for degrees, who grant licences to practise, who make the regulations for the education of the youth of the profession, are, in almost every instance, men who have never practised in warm countries, and who themselves have never felt the necessity for a wider and more practical knowledge of the diseases peculiar to these climates. Not having themselves felt the want, they have been slow to acknowledge that such a want exists, and slower still to apply the remedy. But ask those who are best qualified to express an opinion on this subject. Ask the medical men who have themselves felt the responsibilities of practice in the tropics, and more especially those of them who have endeavoured to follow recent developments in tropical pathology. Ask them if they do not think that the medical man who goes out to battle with tropical disease should have some special instruction and training for the very special and responsible work he has before him, and if they do not think that the medical authorities should take care that the men who do so go out to practise should be properly qualified so far as teaching can qualify. I am sure of their answer. Unfortunately, most of the men of tropical experience live and practise away from the great medical centres. They are hardly represented on the medical teaching, graduating, or legislating bodies, and so it comes that their opinions do not make themselves felt, and that a much-needed reform is delayed. It is more especially of recent years, partly in consequence of the enormous expansion of our empire and partly in consequence of the advances in tropical pathology which have signalised the last two decades, that the claims of tropical medicine have

become urgent. Formerly the little that was known about tropical disease could be carried in a waistcoat pocket. But of late years so great has been the advance that nowadays the subject is quite as extensive and quite as special, so to speak, as ophthalmology, dermatology, gynæcology, or as any of those departments of medicine which claim and receive special teaching. More so. When the practitioner in this country is puzzled about a case it is an easy matter for him to call in someone known to be familiar with the class of case he is in trouble about. But in the wilds of Africa, in the islands of the Pacific, in lonely stations in India or China there is no consultant to fall back upon. The practitioner there has himself alone to depend upon. And woe to his patient and, if he has a conscience, to his future peace of mind if he is not up to date in his knowledge.

The course of instruction in general medicine usually received in this country is utterly inadequate to qualify for tropical practice. I say so emphatically, basing my assertion on my own experience, my own mistakes, and what I have seen and still daily see of the mistakes of others. Let me illustrate this by a few examples. Take that great scourge of mankind, greater, perhaps, than tubercle itself—namely, malaria. This is eminently a tropical disease. Every day the tropical practitioner is fighting it. Yet what does the student and future tropical practitioner actually know about malaria when he is stamped as qualified to practise his profession even in the haunts of this disease? He may possibly recognise a tertian or a quartan ague, and he may know that quinine will cure them. Ten chances to one his malarial patients know all that quite as well as he does himself. But could he, any more than his patients, tell a malarial remittent from an enteric fever; could he diagnose a pernicious malarial attack from cholera, it may be, from thermic fever, from apoplexy? He has heard of the malaria germ, but has he seen it; could he recognise it; has he been taught to find it for himself; to make use of the fact of its presence or absence in the circulation as an infallible means of diagnosis? What would an examiner nowadays do with a student who could not recognise and demonstrate the tubercle bacillus? He would pluck him. At all events, were I an examiner I would pluck him. And if I were an examiner and found that a student, intending by-and-by to practise in the tropics, could not recognise and demonstrate the malaria parasite I would do the same. For I know that the malaria parasite is just as important to him and his prospective patients as the tubercle bacillus is, and that the ability to recognise and demonstrate it is just as necessary for the tropical practitioner. In those terrible sudden forms of malaria which now and again will be sprung on him perhaps the only reliable means of diagnosis lies in ability to recognise the malaria parasite. Life hangs on it. Dr. Andrew Davidson, whose experience in tropical medicine has been very great, and whose judgment and knowledge are on a par with his experience, on my telling him I was to speak about these things to-day, and sympathising with my views, at my request sent me some memoranda on the subject. He relates a case which well exemplifies the necessity for knowing something about malarial disease before attempting to treat it. He writes: "I had not landed many weeks in Madagascar when I was called upon to see a patient who, I was told, had been suddenly seized with what was looked upon as an apoplectic fit. This was in the afternoon, and when I saw him about an hour afterwards he was lying unconscious, the body in a state of complete resolution. The skin was cool, the pulse and respiration were slow, and there was no stertor. His condition suggested cerebral hæmorrhage or thrombosis. It was, indeed, in a certain sense a case of thrombosis, for, as it turned out, the patient was suffering from the apoplectic form of pernicious malarial seizure, in which, as we now know, certain capillary areas in the brain are permanently or temporarily blocked by malarial parasites and pigment. The disease is by no means a rare one in malarious countries. It had long before been described by Torti. I had read in Graves's Lectures of the soporose or comatose seizure, in which fever is a prominent symptom. Here there was no fever, and the possibility that it was a malarial attack never entered my mind. What the precise brain lesion might be I could not decide. But something had to be done, and I saw nothing better than to place a drop of croton oil on the tongue, apply a blister to the naps of the neck, and warn the relations to prepare for the worst. I was gratified to hear next morning that, after remaining ten hours insensible, the patient had recovered consciousness; but what surprised me most was that there was no paralysis. The patient's chief complaint, in fact, was the blister. In the afternoon of the same day the patient was seized with shivering, fever, and sweating. There could now be no difficulty either as to diagnosis or treatment. The patient probably owed his life to the fact that the apoplectic seizure did not recur and prove fatal, as it often does when treated on the lines I had followed. What I conclude from this is that grave mistakes would often be obviated by special instruction in tropical medicine." Dr. Davidson remarks: "Experience, no doubt, is a good teacher, only the fees are very heavy." The microscope would probably have diagnosed this case correctly, but then one must be taught how to apply it.

I could relate from my own experience many similar stories illustrative of the danger to life with which a working experience in malaria has been bought. As with malaria, so with many less important, though nevertheless very important, tropical diseases. What, I would ask, does the student learn of practical value about beri-beri, a disease which, if he is to practise in the tropics, he is almost sure to encounter often enough, although he may not recognise it when he does come across it? Beri-beri is a very important malady. Occurring both endemically and epidemically it annually kills its thousands and tens of thousands. It makes the settlement of many fertile lands almost impossible. It kills off the planters' coolies like flies and makes his plantations unprofitable. It fills the hospitals and is a downright scourge in some of the fairest lands of the earth. But it is a disease which can to a great extent be prevented; and it is a disease which can by proper management be robbed of much of its danger. Its recognition, therefore, is of the first importance. Many times, in beri-beri perhaps more than in most diseases, early and correct diagnosis means the saving of life. When I first went to the east all I knew about beri-beri was its name. This I had sometimes seen in books. I had wondered at its quaintness; perhaps, medical student-like, I had waxed facetious about it and had punned upon it. So little did I know about beri-beri that I believed some medical writers who said that it was a kind of anæmia. Examiners, I was told, were not likely to ask any troublesome questions about the symptoms, pathology, or treatment, so I skipped the chapter on beri-beri in "Aitken's Practice of Medicine" as being for my immediate purpose useless. Students then, as I suppose students now, worked to pass their examinations as their primary object; to learn their profession was altogether a secondary affair. Little wonder, therefore, I failed to recognise the disease when I first came across it. I well recollect my first case, and the horror and the shame with which it filled me, and still fills me. I was then in practice in Formosa. One day I was called to see a Chinese clerk employed in a European firm. I had known him well as an active, obliging young fellow. I found the patient sitting propped up in a chair, short of breath, dropsical from head to foot, with a cardiac bruit, irregular, tumbling action of the heart, and complaining of a feeling of distress in his chest. As there was no albumin in the urine, and as there was a loud bruit with manifest disturbance of the heart, I felt convinced it was a case of heart disease, and from other circumstances in the case one which treatment would benefit. I prescribed and gave directions, and went away feeling, and probably expressing by my manner, that we Europeans knew a great deal more about disease than the old Chinese doctor who hitherto, with the assistance of the village idol, had been treating the patient. Next day I went to see the lad expecting to find an improvement. I thought as I passed the door that there was a strange hush about the house. I entered what was my patient's room. On the bed, covered with a blanket, there was something long and rounded and still, which explained the hush I had noticed; and so I left the house sadder, wiser, and, I trust, humbler than I did the day before. Some years later, being then in general practice at Amoy and in charge of a large native hospital, I used to see a number of Chinese soldiers who came to hospital suffering from what appeared to me, in my ignorance, to be locomotor ataxia. Some could hardly walk, others could just stagger into the out-patient room, and some had to be carried in. The significance of the knee-jerk symptom in spinal disease was then a new discovery, and in those days was regarded as a sure sign of locomotor ataxia. In all of these soldiers the knee-jerk was absent, and all of them exhibited what I took to be ataxic symptoms. If you would criticise

my diagnostic acumen please bear in mind that in those days peripheral neuritis had not been invented. However that may be, I diagnosed these cases as locomotor ataxia, prognosticated that they would never recover, declared that there was no immediate danger to life, put them to bed, and prescribed strychnine in various forms. But by-and-by, in utter disregard of my prognosis and of my reputation, in the course of a month or two some of those soldiers whom I had regarded and pronounced as hopeless cripples were walking about; some had even returned to their military duties. This is the pleasant, not to say the funny, side of my mistake. There is another side, however—one not quite so funny. A good many of these patients died—died suddenly, just as my dropsical Formosa patient had done. I was mortified as well as puzzled. What was the nature of these cases? My books did not help me. I noticed that whereas some of these paretic patients were wasted to shadows, others were swollen and œdematous. I also noticed that in most of them the muscles, especially the calf muscles, were tender. Occurring as this disease did as an epidemic, and confined to a very limited area (for most of the cases came from a damp, ill-constructed fort, the casemates of which served as a barrack), and knowing that the Chinese are very fond of pork, I thought that the muscle tenderness and the œdema might be symptomatic of trichinosis. I thought I might be dealing with an epidemic of trichinosis. Indeed, I went the length of searching the muscle for trichinæ. If they can help it the Chinese will not allow their dead to be dissected. I always entertained a great respect for what we in our civilised pride call "native prejudices"; but in this instance, in view of the importance of correct diagnosis, I thought I would run the risk of offending these for once. So with the aid of an old and seasoned native porter I smuggled one of the dead bodies into a piece of waste ground near the hospital, and there behind a wall excised a piece of muscle. Needless to say I found no trichinæ. In this way I groped about for a long time in search of a diagnosis. It was not till months had elapsed and not a few deaths had occurred that I recognised that I had to deal with an epidemic of beri-beri, and it was only then that it began to dawn on me that the poor dropsical fellow who had died in Formosa some years before had really died from beri-beri and not from heart disease after all.

For exactly the same reason—lack of proper teaching—the history of my education in the matter of beri-beri is that of most of the medical men of my generation who, in lonely places in the tropics, essayed to practise their profession. And I am grieved to say that in this matter even at the present day it is just as it was thirty years ago. My education in beri-beri was got by experience; the young medical man of the present day has to learn in exactly the same costly way as I did and in the same stern school of experience. As Dr. Andrew Davidson says in his letter to me, "The fees are heavy." Only the other day I got to know that there had been no improvement on the teaching of beri-beri in all these thirty years. This is how I came to realise the ugly fact. Beri-beri is very common, you may be astonished to hear, in the port of London, especially among the lascars and seedy boys who in many instances form the bulk of the crews of the large steamers trading to the east. The cases are often brought to the Seamen's Hospital. They come on written medical recommendation and are sent as cases of heart disease, kidney disease, almost anything but beri-beri. They are very rarely correctly diagnosed. Now the ship-surgeons who make out the certificates are usually men fresh from the schools and from their examinations, and therefore, presumably, well up in all that is newest in medicine. Here is a verbatim enumeration of some of their diagnoses: anasarca, rheumatism, pericarditis and fits, dyspnœa, cardiac disease, debility, asthma and anasarca, Bright's disease, locomotor ataxia, myelitis, tachycardia, apoplexy, paraplegia, progressive muscular atrophy, and, of course, hysteria. I transcribe these diagnoses from the admission registers. Not once in a dozen instances is the diagnosis correct. Now it does not matter so much whether the cases are correctly diagnosed or not provided they are sent to hospital. But there is every reason to believe that many of the cases of ship beri-beri are not sent to hospital, but are treated on board their ships, and that many die in consequence. When we admit a case of beri-beri from a ship we ask if there are any more cases of the disease on board and if there have been any deaths. We are generally told that there are no more cases on board, but that there have been deaths from heart disease, asthma, or some such name, which from experience we know under the circumstances stands for beri-beri. Sailors, we may be sure, are not shipped with active heart disease or with asthma such as would be likely to have a speedily fatal issue. I heard of one instance of a lascar who had been shipped in India as an effective seaman. Within a few weeks he died on board ship, and the cause of his death was officially logged as locomotor ataxia; as if locomotor ataxia ever ran its course in four or five weeks. The man died from undiagnosed beri-beri as many others have done. All this represents a very serious, not to say disgraceful, state of matters. Most of these deaths are avoidable. No beri-beric should be allowed to remain in the place, whether house or ship, in which his disease was contracted; to allow this is like treating a case of alcoholic neuritis with brandy. To treat alcoholic neuritis properly you must first diagnose it, and similarly to be able to treat beri-beri properly you must also first diagnose it correctly. But without special instruction or without an experience bought with human life there is as little chance of being able to diagnose the one as there is to diagnose the other.

Filariasis is another tropical disease which is often overlooked, and about which there are many absurd and even dangerous misconceptions. In most tropical countries in which the subject has been investigated it has been found that about one man in every ten is affected with blood worms. In some places the proportion is as high as one in three, in others one in two, and I know of at least two places where nearly every inhabitant is victimised in this way. Surely, therefore, it is of importance, seeing that these parasites give rise in many instances to grave disease, that the medical practitioner should know something about them, be able to diagnose their presence, and recognise their effects. But ten chances to one if one asks a student, or even a medical practitioner, to set about examining a patient for filariæ he will prepare a very fine film of blood, such as would be suitable for the demonstration of bacteria, and that he would set to work to examine it with a twelfth of an inch immersion lens and an Abbe condenser. Now, although there may be tens of millions of filariæ in the patient's blood the chances are they will not be discovered by such means. Most people think that when they have to make a microscopic examination the more microscope they have the better. As a rule, the reverse is the truth. Filariæ should be sought for with an inch objective, otherwise they will be missed. Though the individual filariæ are large as compared to bacteria they are relatively few in the blood. You require, therefore, to include a large field with your microscope to have a reasonable chance of finding them. If a sailor could command with his eye only the narrow horizon visible from a small boat he is not likely to see many whales in the sea, so he ascends into the crow's-nest at the mast-head, and, commanding there a wide view, he can see any whale that spouts for miles around. So it is in searching the blood for filaria—a large field is indispensable. But this is a self-evident fact hardly ever grasped by the student unless he has it actually demonstrated to him. He seldom arrives at it spontaneously. Now, exactly the opposite is the case for the malaria parasite. All this needs teaching, needs demonstration. The malaria parasite I tried to find for nearly ten years before, through accident, I finally succeeded. A Chinaman found my first filaria for me. I mention these things to show how necessary it is, if we would save time and make the best of our opportunities, to have someone to teach us even simple technique.

In connexion with filariasis and blunders in diagnosis from want of elementary instruction in tropical disease I may refer to a case which I came across. The patient was a handsome young fellow, who some years before had joined a regiment of horse artillery then in India. He got on very well for a year, liked his work, and was on the high road to promotion. One day he got a smart fever, and with the fever a pain in his left groin, which he now and for the first time noticed to be swollen. In due course the fever subsided; not so the swelling, which grew and grew until it became the size of a fist. It interfered with his riding, and so he consulted the regimental surgeon. The swelling was soft and to a certain extent reducible. Accordingly rupture was diagnosed and a truss applied. But the truss caused so much pain that it could not be worn. It irritated the swelling, and brought on attacks of inflammation and fever. Getting no better he went to one of the Presidency towns to consult a surgeon of experience in tropical disease. This surgeon recognised at once the true nature of

the swelling, diagnosed the case as one of varicose groin glands, confirmed his diagnosis by an examination of the blood, which he found to be full of filariæ, and very properly advised the patient to throw away his truss and to give up soldiering. Now a very little instruction in tropical disease given to the regimental surgeon would have put him on the right track, would have spared this patient much suffering, time, and expense, and have reduced to some extent the military burdens of our over-taxed Indian empire.

One more illustration of my contention. In 1895 and again in 1896, Mr. Galgey, colonial assistant surgeon, St. Lucia, West Indies, sent certain valuable reports to the Government, part of which were subsequently published in one of the leading medical journals, pointing out that ankylostomiasis is very prevalent in St. Lucia and probably all over the West Indies, and narrating his experience of the wonderful efficiency of thymol as an anthelmintic. As many of you are doubtless aware, there is a form of pernicious anæmia common among negroes and the natives of hot countries generally. The patient, without obvious reason, becomes breathless, weak, anæmic, dropsical, and very likely, after a long and distressing illness, dies. Many years ago Griesinger showed that the Egyptian form of this disease was associated with—in fact, caused by—a blood-sucking intestinal parasite—the ankylostomum duodenale. In 1880, in consequence of the publicity given to this discovery by the epidemic of ankylostomum anæmia among the workmen in the St. Gothard tunnel, this fact of the relation of the ankylostomum to a form of pernicious anæmia was thoroughly established. In the same year Bozzolo introduced thymol as an anthelmintic in this helminthiasis. Experience in Jamaica, Ceylon, Java, Brazil, the Straits Settlements, and elsewhere confirmed Griesinger's discovery of the cause of this anæmia and also Bozzolo's discovery of its curability by thymol. But although these things were well known in Italy and in many parts of the tropics their importance was missed by the teachers of medicine in England, and as a consequence the medical men who went out even subsequently to 1880 to the West Indies went out imperfectly informed in a matter of the highest importance to a considerable section of the people committed to their charge. Thus our fellow subjects, the poor negroes, did not have the benefit of an important advance in medical science and in practical therapeutics until Mr. Galgey found, fifteen years after it was known in Europe, that ankylostomiasis was the cause of the anæmia of the negro, and that thymol could cure it. Who can estimate the number of lives that might have been saved if tropical medicine had been taught to our West Indian colonial surgeons and if they had gone out thoroughly informed on the subject of ankylostomiasis? Mr. Galgey writes that in the six years 1890–95 there were 72 deaths in the hospital of Castries, St. Lucia. In the year 1896—that is to say, since he diagnosed the nature of these cases and treated them efficiently—he informs us that there was not a single fatal case of this disease. From this we are entitled to infer that the seventy-two deaths from pernicious anæmia occurring in the preceding six years were from ankylostomiasis, and that these seventy-two lives might have been saved. That is to say, an average of twelve lives a year. Or, assuming that this mortality had been going on ever since 1880, the date of the discovery of the anthelmintic properties of thymol, we must conclude that in the hospital of Castries alone 180 people died whose lives might easily have been saved. But this is not all. There are four or five hospitals and dispensaries in St. Lucia, and as there is no reason to suppose that ankylostomiasis is confined to the Castries district of the island we are forced to conclude that in these fifteen years about 900 have died unnecessarily in St. Lucia. St. Lucia is one of the smaller West India islands. Although I know that thymol has been in use for some time in British Guiana, I do not know that, except in the hospital in Kingston, Jamaica, it has been generally employed in the neighbouring archipelago. I also know that the existence of the ankylostomum has not been recognised, at all events until very recently in many of the islands. The avoidable mortality from ankylostomiasis therefore for the whole of the West Indies during these fifteen years must run into tens of thousands. This is a serious indictment against our present system of medical education, and the worst of it is that what holds good for ankylostomiasis holds good for a dozen other tropical diseases, some of them perhaps not so serious as ankylostomiasis, but some of them even more serious.

I fear that, as so often happens in medical lectures, I have spent so much of my hour in describing the symptoms and pathology of this disease of the body medical that I have little time left in which to speak of that very practical matter, the treatment. I hope, however, I have convinced you that we are speaking of a very grave disease in our educational system, and that there can be no question about the diagnosis and the indications for active and prompt treatment. I have my own ideas about the latter, but as the responsibility in the case is serious I have called in a specialist of experience to prescribe. I need hardly say I fully endorse his prescription. Dr. Andrew Davidson writes: "I do not think that attendance on a course of lectures on tropical medicine should be made a part of the ordinary curriculum. It seems to me, however, urgently necessary (1) that a course of lectures on the hygiene and diseases of warm climates should be instituted in each medical school; (2) that a certificate of qualification in these subjects be granted by the licensing bodies after examination to those who have attended this course of lectures; and (3) that the Government should encourage the study of tropical pathology by giving a preference to those possessed of this certificate if equally proficient in other subjects, and that appointments made from home of medical officers for tropical and sub-tropical colonies should be restricted to men holding this qualification." If these suggestions are acted on, not only would vast benefits accrue to the natives of warm climates and to those Europeans who have to reside among them, but an enormous impetus would be given to tropical pathology and therapeutics, and, doubtless, indirectly to medical science in general. By instituting a lectureship on tropical medicine St. George's Hospital has done its share in encouraging this necessary reform in medical teaching. Other schools are following our lead; but be the schools ever so willing to second each other without the coöperation of the General Medical Council they can do but little. As Dr. Davidson suggests—and it is the General Medical Council that can alone give effect to the suggestion—there should be a special examination and some kind of diploma for tropical medicine, and Government should countenance and encourage it. If this reform be carried out of one thing I am sure, and that is that those of you who in the future may go abroad to practise your profession will bless the General Medical Council for forcing you to qualify yourself for your work.

Abstracts
OF
INTRODUCTORY ADDRESSES, ETC.,
DELIVERED AT THE
LONDON AND PROVINCIAL MEDICAL SCHOOLS
AT THE
Opening of the Session 1897-98.

UNIVERSITY COLLEGE, SHEFFIELD.

INTRODUCTORY ADDRESS BY DR. PYE-SMITH, F.R.S.

AFTER congratulating Sheffield on the union of Firth College and the Medical School to form the new University College, and on its approaching admission as a constituent of the Victoria University, Dr. Pye-Smith referred to the history of university education in England. The mediæval universities of Bologna and Padua, Salamanca, Paris, Oxford, Leipzig, and Wittenberg were succeeded at the revival of learning by the foundation of many new ones on the continent of Europe. The four national universities of Scotland were founded during the same period between the end of the fifteenth and the beginning of the seventeenth centuries. In the sixteenth century also were founded many of the colleges at Oxford and Cambridge and the University of Dublin. But it was strange that in the six centuries of national development which extended from the time of Magna

Charta in 1215 to the time of Waterloo in 1815 no university was founded in England. These northern counties were comparatively poor and barbarous until modern times, but it was remarkable that there had been no University of York, of Norwich, Bristol, Exeter, or Canterbury. The two great secular professions of law and medicine had their own history and their separate development, and neither Pope nor King gave a third university to England. During the long and prosperous reign of our revered sovereign much had been done to make up arrears. University and King's Colleges and the University of London, Owens College at Manchester, Mason College at Birmingham, and the University Colleges of Bristol, Leeds, Liverpool, Nottingham, Newcastle, and now of Sheffield have successively arisen; and within the memory of all present the Victoria University (of which all present formed members) and the more recent University of Wales have been founded by Royal Charter. Enough probably had been done for the present in constructing the framework for higher education in England. Accumulated endowments were still needful and the working out of the federal type of university. If he might offer advice drawn from the chequered and still uncertain fortunes in London he would say—trust to local wealth and public spirit and avoid Government grants as much as possible. Beware of the utilitarian spirit; let adequate provision, personal and material, be made first for literary and scientific research, secondly for education, and thirdly for technical instruction. The reversed order was the easier, but in the long run he ventured to think the less fruitful. While the moderating influence of statesmen and men of business and the interest and support of past students and graduates would find a valuable place in the constitution, let the chief responsibility rest upon those actually engaged in teaching and research. And in settling provisions of charters, respective powers of colleges and terms of graduation, everything should be done to decide these questions for themselves or by independent visitors, royal commissioners, or arbitrators chosen by the Crown from men of experience in university matters, and not by the inscrutable counsels of ministers and the meddling of individual Members of Parliament. Dr. Pye-Smith then went on to speak of the two senses of the word knowledge, both of them the objects of attainment by students of a university. The desire for knowledge how to do something is historically the earlier and is shared to some extent by the lower animals. Its end was subjectively the partly physical, partly intellectual pleasure of exercising the muscles and brain, objectively the attainment of some useful object. Such knowledge was called skill or art, and the man who attained it was a skilled workman, an artisan, an artist, a master of his craft. The continuity of this kind of knowledge depended on tradition, and its improvement was by invention. Its acquirement was called technical education; its results were seen in the products of agriculture which feed us, in the ships and railroads which carry us round the globe, in the triumphs of steam and electricity, of preventive medicine and antiseptic surgery, in the matchless steel, the wondrous armour-plates, and all the vast output of the skilful industry of Sheffield. But there was another kind of knowledge—the desire for which came later in human history—the knowledge of what things mean, of how they consist, of why one event follows another. This knowledge was not active, but contemplative, not practical, but theoretical, not technical, but scientific. Its end was purely intellectual; subjectively, the pleasure of exerting the mental powers by which the Creator had enabled us to understand a portion of His ways; objectively, the truth about things. We call this knowledge science; that is, not only acquaintance with the objects around us, or natural history (descriptive botany, zoology, mineralogy, geology, astronomy, and anatomy), but also some insight into their constitution and growth, into the laws of their origin, their actions, their decay and metamorphoses. This was called natural philosophy. Its improvement depended, not on invention of tools and methods, but on discovery of facts and their relations. It was only indirectly useful, and the pleasure it gave was in proportion to the intelligence of the man who felt it: "*Felix qui potuit rerum cognoscere causas.*" The abstract sciences seem to have arisen out of the needs of useful arts—geometry out of measuring the rising of the Nile, arithmetic out of counting the hosts of a Persian despot or the gains of an Indian money-lender, trigonometry out of setting landmarks, chemistry out of the alchemist's search after gold, botany out of materia medica, and anatomy out of surgery. Amply has the debt been repaid. At the present time all the progress in useful arts was called "scientific," and rightly so, for all depended upon natural science. Agriculture rested on the basis of organic chemistry, geology, and botany, navigation on astronomy, the working of metals on physics and chemistry, engineering on mathematics, medicine on physiology, and if ever the art of governing mankind was to be more than empirical it would rest on profound knowledge of paleontology and neurophysiology. What, let us ask more particularly, are the objects and what the limits of natural philosophy? We must give up as beyond human powers all knowledge of real existence, of the true nature of things, of an essential "substance" underlying all phenomenal accidents. On this quest the ancient philosophers went astray "and found no end, in wandering mazes lost." In the same labyrinth the nominalists and realists, and the acute mediæval schoolmen argued and deduced and syllogised. Their labour was not wholly lost, it sharpened men's wits and it set up a warning sign-post inscribed "No thoroughfare." If, however, it was determined to believe nothing but what your senses tell you, the first lesson of physiology was to distrust the perceptions derived from the eyes, ears, and fingers. Our senses do not bring us directly in contact with matter, they only offer us "signs," which by experience we learn to combine and interpret as connoting material objects. And suppose you have forced all phenomena, even those of thought, into a material formula, what evidence have we that matter exists except states of consciousness? So that extreme materialism and extreme idealism meet in an insoluble contradiction, like that between fate and freewill. No science is absolute, not even mathematics, for this does not deal with real objects, but with lines without breadth, with rods which never bend, and cords which never stretch. The only knowledge attainable by man was not abstract but concrete, knowledge, not of existence, but of phenomena. It depended not on deduction from axioms and postulates, but on generalisation from observed facts, not on syllogisms, but on experiments. The results of science were approximate, tentative, constantly liable to correction, expansion or limitation by fresh evidence; and they were not absolute, but only probable. Its method was first accurate, repeated, accumulated observation of facts, under the same and under varied conditions, next some generalised statement, then more intentional, varied conditions or experiments designed to verify or disprove the statement. Gradually the results of observation and experiment become of more and more general application, and at last some rule was found to be so constant and far-reaching that it was called a law. But this, again, was a word to beware of. It was a law only until it was broken. The constancy of species was such a law, and it was quite right for Cuvier and the best naturalists of the former half of this century to hold to it against the speculations of Oken and Lamarck and Erasmus Darwin and Geoffroi St. Hilaire, against the followers of the Naturphilosophie and the evolutionists before the greater Darwin arose. Lyell and Hooker, who disputed the doctrines of their eminent friend until he brought fresh and fresh evidence which inclined the scales of probability, were right up to that point to resist, after that point to accept, the origin of species by natural selection; for the duty of a philosopher was not to make a number of clever guesses, like the wise men of Greece, in the hope that one or other may hereafter turn out right, but to follow evidence to its most probable conclusion. Dr. Pye-Smith then referred to a certain kind of judgment which might be regarded as approximately true and certain, although it could not be proved as a scientific result. It related to matters of morals and of taste which have the consensus of varied and competent opinion. For instance, it might surely be said of the Œdipus Coloneus that it was admired by the highly competent fellow-countrymen of the author at the time; that it had been admired by every generation since and in every country, and in proportion to the prevailing study of poetry in general; and that it was most admired by those who were themselves poets as well as critics. The same applies to all classical works of art, to Grecian sculpture, and to Italian painting. Surely we may say that it was as certain as any scientific fact that Sophocles was a great poet, Phidias a great sculptor, and Titian a great painter; that as long as human beings call roses sweet and the starlit heavens glorious, so long will the names, the renown, and the praise of these mighty makers endure.

The proof of scientific statements was that they came true. The farmer within limits can count on the result of manuring his land and crossing his breeds of cattle. The engineer can, also within limits, rely on the strength of the bridges which he has constructed by aid of mathematical calculations. The physician can, again within limits, foretell the result of a certain morbid process and of a certain preventive or remedial agent. In conclusion Dr. Pye-Smith cautioned against excessive deference to authority, against the intrusion of metaphysics, metaphor, and rhetoric into scientific discussions, and against facile explanation instead of rigorous investigation. He dwelt on the importance of actual contact with materials and apparatus, and the direct study of the original statements of authors. He urged the value of putting all the energy and effort possible into every bodily or mental exercise. "In speaking, in writing, in reading, choose always the best, and in working or playing always do your best. Find the true happiness of energetic exercise of your powers. We know how in mountain-climbing, in rowing, or in any continued exercise the breath fails and the muscles are tired after a time; the temptation to cease effort seems irresistible; but we know also that if we go slowly and doggedly on, the second wind will come, the heart beats steadily again, and we find our powers renewed. So mental efforts have their dull and irksome periods, but if we go on *doucement mais toujours* difficulties yield and perseverance conquers. We have each of us his own appointed limits. If you train you will be able to leap many inches higher than you could at first, but the rapid progress of the first week or two becomes gradually slower, and at length no further practice, no effort of the will, suffices to increase the height you can jump. So it is with mental work; by effort and by practice we can each increase our powers and improve our results. But we shall find our quickness and accuracy of observation, our sureness of judgment, our insight and power of reasoning have their limits. I promise you therefore no impossible results. Each in his own order. You will still look up to the heights attained by Newton and Faraday, by Pascal and Lavoisier, by Helmholtz and Ludwig, with increased, not diminished, admiration, because you have climbed a little higher. But the prize is not in the result—*Labor ipse voluptas*. The strenuous exertion of the powers you possess, the faithful use of the one or the many talents entrusted to each of us,—this is the immortal garland to be won, not without dust and sweat. Each of us has his own powers and they are equal to the duties of each. We may not, we dare not, decline the contest or drop out of the race. For we are set like sentinels, who watch through starless nights and wait the appointed hour, and we can never enjoy the full happiness of active exertion of body and of mind, the pleasure of work and the pleasure of rest, the tranquil heart, the sunshine of the breast, unless we do our daily work

"'As ever in the Great Taskmaster's eye.'"

ROYAL VETERINARY COLLEGE.

INTRODUCTORY ADDRESS BY MR. D'ARCY POWER.

Mr. Power began his address by extending a cordial welcome to the veterinary students who were now commencing their work at the College. They had chosen their profession wisely, for veterinary science was advancing more rapidly than any other branch of the healing art. It was daily obtaining a higher place in the eyes of the State and of private individuals as one of the most useful professions both to the wealth of the country and the welfare of the community. He then continued: "Charles Sainbel, the founder of the Veterinary College, taught human anatomy a lesson and at the same time established his own reputation in England when he published his essay on the proportions of Eclipse (the great racehorse belonging to Mr. O'Kelly), who was never beaten, and who died on Feb. 27th, 1789. The essay is still in advance of the time, for it shows how animal mechanics can be expressed in geometrical terms, and it would be interesting to apply Sainbel's methods to the record-breakers who are now so numerous in the world of athletics. The observations of veterinary anatomists, too, explain many obscure points in connexion with the development and anatomy of man, especially in those aberrant conditions which are found to a greater or less degree in every body which is carefully dissected. The debt of human physiology to veterinary physiology is well recognised. In modern times and in this country it dates from the day in 1727, when Archdeacon Hales introduced a long tube into the femoral artery of a horse, and noted the height to which the blood rose in it. The importance of breeding has led veterinary surgeons to make a most careful examination of the generative functions in animals, and has enriched physiology with many facts of prime importance. It has demonstrated the possibility of artificial impregnation; it has settled the vexed question of superfœtation, and the recent work on epizootic abortion has set us thinking whether a similar condition may not occur sometimes in the human species. In like manner histology owes much to the study of animal tissues, for until recently nearly all the human tissues have been examined either in a diseased or badly preserved state. In botany veterinary science has long placed medicine under a debt of gratitude. All practical men, whether physicians or veterinary surgeons, have had occasion to study the effects of poisonous plants, and the results obtained from observations on animals have often been of signal service to the medical profession. Veterinary science has done more than this, for it has compelled botanists to study the most difficult but important natural order of the grasses, not only from a classificatory standpoint, but in such a manner as to indicate the economic value of the constituent genera. Veterinary medicine sometimes gives valuable hints to the human physician about the use of drugs and the cause of treatment of various diseases, which, though they are common to men and animals, are more common in animals. Until quite recently, however, the importance of veterinary science to physicians has never been better shown than in connexion with the life-history of the more common entozoa, some of whom use our bodies as an intermediate host in the cycle of their existence which they renew in cattle, dogs, or rodents. The surgeon has learnt somewhat less from the veterinarian than any of his brethren who practise upon the human body, yet even he has learnt a few principles from the veterinary surgeon which have stood him in good stead in the advancement of his art. The operations of the sow-gelder stimulated the early ovariotomists to practice a similar operation upon women, and encouraged them to persevere, in spite of the most disastrous results, until the operation was brought from a position of complete disrepute to the high place which it now occupies in the estimation of surgeons. Indeed, it has always been in principle rather than in detail that medicine has been indebted to veterinary science. Nowhere is this better seen than in pathology. Every first-rate pathologist is necessarily a man of science, a comparative pathologist with a wide knowledge of animals as well as of men. It is this fact that has made pathology the grandly progressive science which it has lately become. John Hunter was interested alike in men and cattle, but his successors for many years were mere morbid anatomists concerned with the details of morbid processes, not with their principles. It is only recently that we have outgrown this stage and have become pathologists in the true sense as disciples of Hunter, who must always remain our great master. In pathology human medicine has learnt from veterinarians the great lesson, long since known to the Preacher, but long since forgotten—"For that which befalleth the sons of man befalleth beasts, even one thing befalleth them; as the one dieth, so dieth the other; yea, they have all one breath; so that a man hath no pre-eminence above a beast." The better and wider knowledge of pathology possessed by the best veterinary surgeons often helps them to settle very obscure points in connexion with disease occurring in the human being. It is no wonder, therefore, that comparative pathology daily rises higher in the estimation of the medical profession, for to the thoughtful physician its problems appear to be identical with the most difficult which he is called upon to solve. Daily, too, we see that prophylaxis is the most important part of medicine, and it is exactly in prophylaxis that comparative pathology excels, though it has done good service in pointing out the part played by animals in sharing diseases which affect man. In doing so it has shown that animals may act as transmitters of disease, so that cats and pigeons in diphtheria, horses in influenza, and rats in the plague, must be considered as probable rather than as possible carriers of infection. Prophylaxis is of as much importance to a large stock-owner as it is to the head-master of a public school; and a thorough knowledge of preventive measures is even more valuable to a veterinary surgeon than it is to a physician. Only in exceptional cases will an owner consent to pay for the treatment of a prolonged illness in his stock, whereas a human being must be attended

throughout his sickness, for he cannot be summarily slaughtered. But all preventive measures on a large scale require special knowledge and concerted measures. Special knowledge only accumulates slowly; concerted measures require the intervention of the State. After many years the Government in this country was made to feel the necessity of enforcing the application of sanitary measures and medical officers of health came into existence. In a tentative manner and very incompletely some attempts have been made to form a veterinary sanitary service. But too much is left to the initiative of local bodies, and what has hitherto been done in detail now requires to be established upon a broad groundwork. Such a service properly conducted would be of undoubted use to the community, whilst it would be advantageous to the veterinary profession. The whole of animal hygiene should be placed under the care of a veterinary sanitary service, and as no one can be much in advance of his time such a service for the present should be carried out along the lines which have been found most useful in the medical sanitary service, care being taken to eliminate or, if they cannot be altogether eliminated, to strengthen those points which have seemed to be the weakest in the working of the Public Health Acts. Such a veterinary sanitary service would not be hard to organise. Its existence is already foreshadowed, for the state has recognised that a medical officer of health cannot be omniscient. The Infectious Disease (Prevention) Act of 1890 allows the medical officer of health to be accompanied by a veterinary inspector or some other properly qualified veterinary surgeon to inspect the animals supplying milk to a suspected dairy. Such officers should be much more carefully trained to enable them to perform their duties efficiently, and after a proper course of training, being duly qualified veterinary surgeons, they should be able to obtain a diploma in veterinary hygiene. A specially qualified body of men being thus provided, places would have to be found for them throughout the country. At first, no doubt, this would be difficult on account of the expense, but the stock-owners form so large and important a body of men that as soon as they had satisfied themselves by actual proof that such a system saved them from loss they would readily assist in its extension. The districts over which the veterinary sanitary officers would have to preside should be large enough to occupy their whole time, whilst the remuneration should be sufficient to tempt the most promising of the young men to apply for appointment. There should also be provision for a reasonable security of tenure. Only the very best men should be advised to enter the veterinary sanitary service at first, for they will have to create the service. They will have to fight and to overcome many difficulties both of fact and prejudice. Not only will the public be opposed to them, but as some of their duties must necessarily overlap those of the medical officers of health there is certain to be some jealousy between the less competent and more narrow-minded members of the two services. The more highly educated and the more far-seeing members of the medical profession, knowing the disadvantages of dual control, will readily yield to the veterinary service those duties which seem especially to belong to it, and they will welcome a release from comparatively alien subjects, as it will allow them more time for the effectual performance of their own work, which is already sufficiently arduous. The duties of the veterinary sanitary officers would be to carry out the provisions of the Animals Contagious Diseases Acts and of the Dairies, Cowsheds, and Milkshops Orders of 1885 and 1886. They would also inspect piggeries, the slaughter-houses and butchers' shops, and they should be given effectual control over all meat exposed for sale. By a careful system, too, of notification, followed by immediate inspection, they would be able to control many contagious diseases, whilst a better system of registration and the destruction of ownerless dogs throughout the country would soon render hydrophobia as rare in England as is leprosy. The veterinary sanitary officers having to control large districts would necessarily require assistance, which would be provided by recruits from the class who now furnish the veterinary sub-inspectors—reliable men who have held positions of trust in the district, and who are therefore well acquainted with the local inhabitants and their customs. Even these men, however, should receive some course of training before they enter upon their duties. The veterinary inspectors would remain, for they have done good and useful work; but as vacancies occurred their successors would be selected from the most energetic and tactful of the veterinary sanitary officers, who would be tempted by the prospects of better pay and wider duties. The veterinary inspectors would form a more select body of men, specially qualified to sift evidence and fitted by the highest scientific training to cope with the more formidable outbreaks of epizootic disease. They would be responsible to the Department of Agriculture whilst the veterinary sanitary officers would be under the control of the County Councils. Both classes of officials should be wholly occupied in their duties and should be prohibited from private practice lest there should be even a suspicion that their interests as individuals might clash with the efficient performance of their public duties. The surest way to ruin the service would be to make a series of small appointments; but if a service of well-trained men devoted their whole energies to the study of veterinary hygiene we might soon obtain a great school of general or comparative pathology serviceable alike to the state, the community, and the individual. Many preventable diseases would be abolished, stock-owners would become more prosperous, and the average life of man would be still further prolonged."

LONDON SCHOOL OF MEDICINE FOR WOMEN.

INTRODUCTORY ADDRESS BY MR. J. GROSVENOR MACKINLAY, F.R.C.S. EDIN., SENIOR OPHTHALMIC SURGEON, ROYAL FREE HOSPITAL.

Mr. J. Grosvenor Mackinlay, in delivering the inaugural address at the opening of the winter session of the London School of Medicine for Women, disclaimed any intention of giving a formal lecture on the advance made in surgery, medicine, and therapeutics during the last few years. He merely wished to make some practical remarks based on his own experience. In speaking of the origin of the medical movement amongst women Mr. Mackinlay traced its growth and accumulative strength through the troublous times of its initial stages, to the recent rebuff met with at Cambridge, and the refusal of the Royal College of Surgeons of England to grant diplomas to the sex. He characterised such policy as short-sighted, and the fees were in consequence being diverted into the more liberal spirited academies and colleges of Scotland and Ireland, Belgium and Sweden, or Paris. His hearers should show the authorities what they can do without their help and by the aid of Newnham and Girton. In alluding to women's medical work in Her Majesty's vast dominions particular stress was laid by Mr. Mackinlay on that carried on in our Indian provinces, the paramount requisite for pursuing this being good health. He felt that he might speak with some authority on the great need for female practitioners in the East, since both his father and an uncle had spent several years in the Indian Medical Service; and here he characterised as derogatory to the profession those women who obtain but a few months' training at a hospital or dispensary and return to the East with scanty qualifications, small knowledge, a Bible, and a few instruments, posing as "lady doctors," but in reality merely taking the bread out of the mouths of the more competent and properly qualified women. Woman has now released herself from the old bonds, especially by her entrance into the medical profession, with all its attendant responsibilities. Many of the studies have to be carried out under objectionable, but unavoidable, circumstances; none the less, woman's advance in the profession has been sure if slow. Recalling the meeting at Nottingham, at which qualified ladies were elected members of the British Medical Association, Mr. Mackinlay paid a tribute to the lifelong work of Mrs. Garrett Anderson and Mrs. Scharlieb, mentioning also that past gynæcological authority, Madame Boivin. The late Albert Smith called medical students "an interesting race," although in his time no women medical students existed; his advice to them was, "Forget the deeper studies, and forget the red globules of the blood in billiard balls." Ladies could substitute cycling, tennis, or other exercises for the billiards. Considering the many eminent men connected with the Royal Free Hospital, the names of Mr. Wakley, Mr. Gant, and Mr. Rose immediately presented themselves. The speaker also dwelt upon the many changes in the building and in the *personnel* of the institution in the Gray's Inn-road, and alluded to the Hospital for Women and to the alterations now proceeding at the school in Handel-street. Of his own speciality—ophthalmology—Mr. Mackinlay treated very briefly, touching upon the far-reaching responsibility of the mode

of procedure in eye diseases and of the terrible deprivation which loss of sight meant to the uneducated poor. In this branch of the medical art, nerve, cheerfulness, and kindness were the essential weapons for the fighting of the hard battle against optical derangements. Amongst the advice tendered by the speaker to the students present was that of being just to their colleagues and to brother or sister practitioners, of the necessity for truthfulness and lucidity in dealing with patients and their relatives, and the positive need of dogged perseverance in the work. Despatch and method were the soul of the profession, and the smallest detail of deportment, whether of voice or of expression, required to be studied. The demonstration of sympathy should never be repressed, and none having a heart should simulate indifference, this latter being the perfection of selfishness. In conclusion, the lecturer spoke in warm terms of appreciation of Lord Lister, and as a corollary suggested that Her Majesty might institute some order of distinction for the women members of the medical faculty. Verily did they merit it since many of them had to go through not only serious trials but often through imminent danger, possibly unrecorded and sometimes unrecognised, and for these there had, so far, been no especial reward. Many women had died at their posts from cholera, diphtheria, fever, and other forms of contagious disease. They could only hope that the day was not far distant when a "Red Badge of Courage" would be instituted for medical women, as well as for women nurses, and that the Queen would see her way to further ennobling them. At any rate, even if all could not attain to the dignity of a great doctor at least duty might be fearlessly and thoroughly performed which would ensure contentment. With Hazlitt all might then say when their time was over "Well, I have had a happy life."

SPORADIC CRETINISM.[1]

BY A. GORDON PATERSON, M.A., M.D. EDIN.

IT is now an accepted fact, I think, that sporadic cretinism is a disease, probably congenital, occurring in infants and children, analogous to, if not identical with, the disease of adult life termed myxœdema. In both the essential feature is either the absence or the deficient action of the thyroid gland. Curling was the first who, in 1850, drew attention to the fact that in cretins the gland was either absent or diseased. Hilton Fagge later stated what he considered would be the condition of an adult in whom the thyroid gland ceased to perform its functions—that is, he drew a correct clinical picture of myxœdema. If we allow for the fact that in infants and children the whole system, and especially the brain and bones, is undergoing rapid development and that in adults these processes have come to an end we shall find that we have to deal with a disease which is identical in both. In each disease the cerebral, motor, and trophic nervous systems are profoundly affected. In the infantile form the disease is probably due to some intra-uterine condition of either absence or mal-development of the thyroid gland. There are two theories propounded in regard to the reason why an absent or deficient thyroid gland should give rise to these abnormal conditions. The first is that the gland secretes some substance which is essential to the healthy and harmonious working of the central and peripheral nervous systems. By the want of this substance the nervous mechanism is deprived of a something which regulates the formation and deposition of mucin products, so essential a feature of both diseases, the mucin being thus deposited in the superficial and finer meshes of the corium, impairing motility and impeding nervous impulses, afferent as well as efferent. The second theory is that the thyroid gland excretes from the blood some materials formed in the body metabolism which by their retention cause a form of toxæmia, affecting principally the cerebral centres and the nervous mechanism concerned in mucin metabolism. Whichever theory may prove correct, the result is the same—viz., the production of some substance which counteracts the abnormal constituents of the blood. This is clearly shown by the rapidity with which the œdema disappears under treatment, and shows that the substance has a solvent action on mucin when deposited, and therefore in health acts on the mucin constituents, which, if left to pass freely through the body, become deposited as mucin. The thyroid gland being ductless rather points to a secretion than an excretion. Otherwise, how are we to account for the fact that implanting thyroid gland in the body causes an improvement? There cannot in such cases be an excretion, but rather a secretion of some substance neutralising the toxic materials in the blood and system. When the disease occurs in early childhood it is probably due to the gradual failure of an imperfectly formed thyroid gland. When the disease occurs in adults the cause is usually some abnormal condition of the gland which, though acting imperfectly, finally ceases to perform its functions. That the secretion of the thyroid gland exercises a powerful effect on the animal economy is evident if the results are noted when the extract of the gland is administered in myxœdema and in cases of obesity. The marked thinning that occurs by the removal of the œdema is palpable to the most casual observer. What the causes are which lead to the mal-development of the gland is not known. It has been suggested that cretinism might be due to what has been termed alcoholic conception. From the history of this case and of another which unfortunately died before treatment could be commenced the alcoholic factor must certainly be left out of account. Before I pass on to detail the case of the child I would like to say that it is interesting from three points of view. Firstly, the early age at which the disease commenced, the immediate and remarkable effects of the thyroid treatment, and the steady improvement which has been maintained to the present time—a period of treatment lasting for five years. Secondly, the fact that the mother gave birth in December, 1893, to a second (female) child, which was an exaggerated counterpart of the first and which only survived its birth twenty minutes. Thirdly, the very interesting fact that the mother in her third pregnancy was treated by thyroid extract from the beginning of the third month and gave birth in October, 1896, to a fine healthy female child. I shall now pass on to the case.

Infant treated with thyroid extract from the nineteenth month to the sixth year.—A male child was first brought to me, when eleven months old, the mother stating that from the seventh month it was noticed that he was backward and suffered from obstinate constipation, which did not yield to the ordinary simple remedies. As, however, the child had been bottle-fed from the seventh month it was thought possible that the constipation might be due to some error in the food. It was also further noticed that the fontanelles were very open and that the child was always cold. The mother said that the labour was the first, with no previous miscarriages, and was easy but slow, lasting twenty-three hours, there being no liquor amnii. The family history did not disclose any facts which in the least offered a clue to the disease. There was no consanguinity between the parents, nor was there any trace of disease associated with thyroid fault or syphilis. The mother was a healthy young woman, twenty-eight years of age, active and sober. The father was a tolerably healthy young man, twenty-nine years of age, of a pale complexion and black hair. He suffered occasionally from headaches and bilousness, which he attributed to want of exercise. He suffered from cold hands and feet. He was sober. When thirteen years old he had a diseased hip, but was treated for a broken leg till it was found out and put right. The only sign of the diseased hip is a slight shortening of the left leg. I was unable when I first saw the case to get photographs of the child. Those here reproduced were taken at the age of nineteen months, when the condition was practically the same as at eleven months. (See Figs. 1, 2, 3, and 4.) In the interval between the eleventh and nineteenth months the treatment was directed in trying to overcome the obstinate constipation, but without success. The illustrations bring out very well most of the details which I shall now describe. There were no signs of teething, he had never had diarrhœa, febrile attacks, or convulsions. His height was twenty-five inches; the head was large and dolichocephalic (Fig. 3): the anterior fontanelle was very open and the frontal suture distinct, the occipito-parietal junctions were widely separated, and on the right side there was a triangular space devoid of bone. The hair, which was brown with a reddish tint here and there, was scanty, fine, and short, the scalp was covered with a branny scurf, the face was of a dirty-yellow colour, but there was no

[1] A paper read before the Reading Pathological Society on April 15th, 1897.

blush either on the cheeks or nose. There was occasionally ciliary blepharitis. The nose was a short pug, very flat and broad at the root, and the cheeks were thick and pale. The mouth was widely open (Fig. 1) and the tongue, which was very large — too large, in fact, for the mouth,—always protruding. The ears were moderate in size, but waxy. The neck was thick and short, but the sterno-thyroids were very distinct. No trace of a thyroid gland could be made out, but there was a slight swelling

FIG. 1.

Infant, aged nineteen months, showing protruding tongue.

over the right clavicle. There were no lipomata anywhere else. The abdomen was barrel-shaped and very tense (Fig. 2), and the superficial veins were very distinct. The whole body was bluish and mottled. There was a small umbilical hernia the size of a hazel nut. The limbs were hard, swollen, and lumpy, very cold, and purple. The mottling was most distinct from the elbows to the finger tips and from the knees to the toes. The hands were remarkably thick and hard from the solid œdema, which did not pit at all. There was a slight anterior curvature of the spine, but no signs indicative of rickets were present. There were no fatty or hairy growths between the scapulæ (Fig. 4). The skin was always dry and harsh, but there were no moles, warts, nævi, eczema, or ichthyosis. The secretion of sweat was almost entirely absent, saliva was abundant, but the nasal secretion was wanting. The muscular development was apparently extremely limited, as shown by the complete immobility of the limbs, but this was evidently due to the solid œdema preventing free action, for it rapidly disappeared on the removal of the œdema under treatment. The reflexes were normal as far as I could judge, the skin sensibility was fair, and sight and hearing were normal. The left testicle had descended into the scrotum, but the right one was still in the inguinal canal. This fact seems to negative the theory that the condition is primarily due to non-development of the sexual organs. The rectal temperature was 97·2° F. The child was extremely susceptible to cold and liked to be always near the fire The voice was harsh and blanketty. As regards mental development spontaneity was entirely absent, this being also probably greatly due to the œdema of the limbs. Intelligence was nil. Sleep was variable. There was great anæmia, but the appetite was good. The bowels, as already stated, were very constipated and the actions were putty-like. The liver and spleen were apparently not enlarged. The urine was clear, straw-coloured, and normal. The heart was normal, but the pulse was very feeble. The respiration was regular, but noisy, owing to the size of the tongue. There were no enlarged glands anywhere. Such were the typical signs of the disease at the age of eleven months. The only differences noted at nineteen months, when the photographs were taken—a period of seven months, during which no thyroid extract was given—were as follows. The anterior fontanelle was still very open, but the left parieto-occipital junction had closed up, and in the right a Wormian bone could be felt; all the sutures were closing up. There were still no signs of teething, and the hair was more abundant. The redness and veins of the eyelids had disappeared, as had also most of the veins of the abdomen. The abdominal mottling and tenseness were less—results due, I believe, to the fact that the child's circulation was better, owing to warm clothing and precautions against cold. The umbilical hernia was smaller, muscular action was better, but he could not sit up at all even with help and could only just move his limbs. He could still only drink while lying down, as owing to the size of the tongue the fluid escaped if he was placed in a sitting posture. The rectal temperature was 96°, and that in the groin was 95·8°. It will thus be seen that during seven months his condition had remained practically *in statu quo*. The thyroid extract was now commenced and consisted in the administration of seven drops of the glycerine extract prepared by Messrs. Brady and Martin, of Newcastle-on-Tyne. After the third dose the face appeared to be smaller, the tongue was perceptibly more in the mouth, and the hands were softer and showed fine creasing and wrinkles due to the removal of the œdema. Spontaneous action was greater, as shown by his rubbing his eyes and trying to grasp objects held up to him, this increased motility being undoubtedly due to the softening of the limbs. After the fourth dose he developed a coryza, and the extract was stopped, but, symptoms of bronchitis threatening, the extract

FIG. 2.

The same, showing umbilical hernia.

was again resumed, with the remarkable result that next day all the coryza and febrile symptoms had disappeared. After the sixth dose the tongue, though still very large, was wholly within the mouth and the pharynx could be seen; this had previously been quite impossible. The next remarkable point is that the bowels now became quite regular and the actions normal in appearance. The urine was not in any

way affected. The most marked feature, however, with the exception of the diminution in the size of the tongue, was that the child had lost the feeling of coldness and no longer became cold when left alone in his crib; in fact, his

FIG. 3.

The same, showing shape of head.

temperature was always from this time practically normal. At the end of a week his limbs had become quite soft and pliable, and he could even sit up in his perambulator with a little help, and when put on the floor made attempts at crawling. At the end of a month's treatment he showed

FIG. 4.

The same, showing position in sitting.

signs of eight teeth and his colour had become natural. This rapid improvement during the first month or so of treatment has also been noticed in most of the published cases. The patient's condition at the end of five months' treatment

FIG. 5.

Showing condition after five months' treatment.

is well shown in Fig. 5. The anterior fontanelle was still unclosed. At the end of eight months' treatment, during which time he had continued steadily to improve, he had cut sixteen teeth, and his general appearance is shown in Fig. 6. The extract was now omitted and the child was fed on fresh

FIG. 6.

Showing condition after eight months' treatment.

sheep's thyroid, half a gland being given once a day; this he continued to take till the end of 1895, when, owing to his not showing signs of talking, I returned once more to thyroid extract, this time in the form of tabloids (five grains), prepared by Messrs. Burroughs, Wellcome, and Co., one a day being given. Very soon he showed more progress in trying to make himself understood by words, and he could always, if he wished, repeat words said to him, but he did not seem to have the power of saying spontaneously any but the most simple words, and these chiefly connected with eating or playthings. He has always had a most acute ear for music and constantly asks his father to play the accordion. One word he had always said spontaneously was "doctor." From the commencement of this year his mental development has increased greatly, and he is now able to repeat consecutively part of his ABC and can name the various objects in his picture-books, but he cannot yet speak a connected sentence. His height is now 40½ in., his weight 44 lb. This weight for height corresponds to the average in the tables. His appearance is well shown in Fig. 7, taken on March 25th of this year. It will be seen that he presents

FIG. 7.

Showing condition at the age of five years and nine months.

little appearance or traces of his former cretincid condition. It will be interesting to watch to what point of mental development he will attain.

Infant, also a cretin; died twenty minutes after birth.—The next point of interest is that in December, 1893, the mother of the patient in Case 1 gave birth to a female child, who only survived her birth twenty minutes and who was an exaggerated counterpart of the first. The appearance of the child is shown in Fig. 8, taken the day after birth. The labour was easy and the amount of liquor amnii was enormous. The presentation was a breech, somewhat puzzling from the fact that the feet seemed to spring from the hips, owing to the extreme shortness and thickness of the legs (Fig. 8). The body was very large and solid from œdema, which did not pit anywhere. The weight was 10 lb. 14 oz. The placenta was very small, and the membranes were tough and gelatinous. The frontal protuberances were very prominent, the bones of the head were soft and widely separated, and the left parieto-occipital junction was deficient in bone to a large extent. The circumference of the head was sixteen inches. The hair was very thick, long, and fine, and reached to the eyebrows as a thick down; it was also very thick and dark over the spine scapulæ, thighs, and buttocks. The colour of the skin was a dirty-yellow, the abdomen was barrel-shaped, the limbs were very short, hard and brawny with deeply marked sulci in the fingers and limbs (see Fig. 8). The

FIG. 8.

Second child, survived only twenty minutes.

length of the arm from the acromion process to the tip of the middle finger was 6½ in., the length of leg from the hip to the sole of the foot was 7 in., and the height from the vertex to the sole of the foot was 16 in. The circumference of the thorax was 11½ in., and of the abdomen at the umbilicus 14 in. I was, unfortunately, unable to make a post-mortem examination.

Mother treated with thyroid extract from the third month of pregnancy; birth of healthy child.—I now come to the most interesting part of the case—viz., the treatment of the mother in her third pregnancy, from the beginning of the third month, by thyroid extract in the form of tabloids, prepared by Messrs. Burroughs, Wellcome, and Co. The fact of the mother having given birth to two cretins in successive pregnancies offered a strong presumption that she would, unless treated, give birth to a third. I therefore pointed out to her, that, while I could not promise success, I felt confident that if she persevered in taking the tabloids regularly during the whole time of her pregnancy, she would in due course give birth to a healthy child. As she was agreeable to this proposition, I advised her to take one tabloid every day during the remaining seven months of the pregnancy. This she did. At no time did she suffer from any discomfort, but on the contrary was much better throughout than she had been in the previous pregnancies. The only effect the tabloids seemed to have was that of fining her down and making her somewhat thinner. Labour came on naturally at full term and was easy. The liquor amnii was not unusual in quantity or appearance. The placenta and membranes were quite natural. The child was a fine healthy female, indistinguishable from any other infant in appearance. The height was 22 in. and the weight 8½ lb. Unfortunately the photograph I took at the time was destroyed, and I have, therefore, only two

photographs in my possession to show the child at the age of five months. From one of these (Fig. 9), I think it will be admitted that the infant is a remarkably fine and intelligent little creature. She is very bright and intelligent and can sit up firmly, shows signs of teething, and can say "da-da." She has so far had no ailment of any sort. Her height is now 26 in. and her weight 19 lb. 6 oz. I am satisfied that treatment of the mother was the cause of the child being born healthy. At the same time,

FIG. 9.

Infant, aged five months, born after administration of thyroid extract to the mother during pregnancy.

I am aware of the possible objection that it is a case of "Post hoc ergo propter hoc." Seeing, however, that the mother has resided here all the time, the statement that a mother who has borne cretinoid children may bear a healthy one by residing during her pregnancy in another place will not hold as an objection in this case, and we must fall back on the alternative that the birth of the healthy child was altogether due to the administration of the thyroid extract. I am not aware of any records of thyroid treatment continued for the same length of time, regularly, in the same child, or of the treatment of a pregnant woman who had borne two previous cretin children giving rise to a healthy child being produced. I therefore think that the case will prove interesting to the medical profession.

P.S.—The boy continues to show a marked improvement in his mental development, and displays a considerable amount of spontaneity in his conversation. He is now six years and three months old. The infant (Fig. 9) is, to all outward appearance, in every way a thoroughly healthy baby and well advanced for her age. She is able to stand and to say several words. She is now eleven months old.

Ascot.

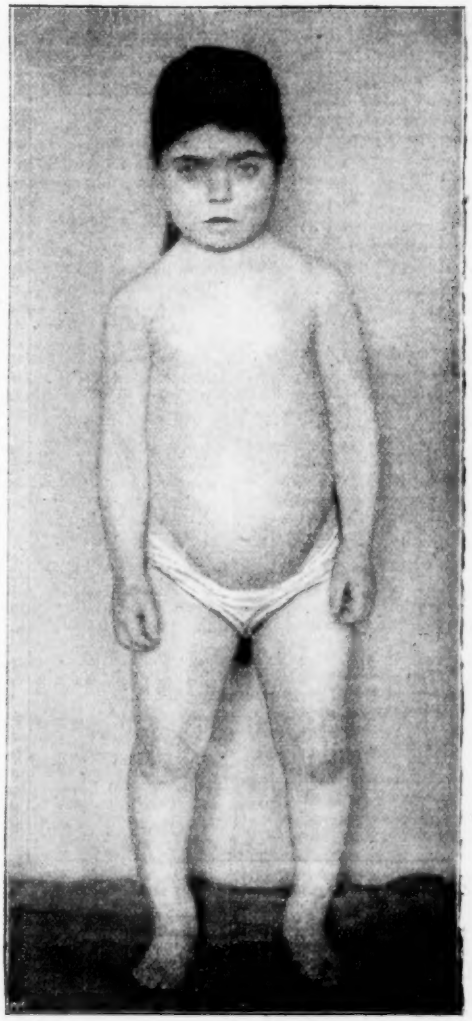
THE BRITISH ASSOCIATION.—The local committee who are making the necessary arrangements for the visit of the British Association to Bristol next year held a meeting on Sept. 21st. Professor Lloyd Morgan stated that he had conveyed the invitation of Bristol to the Canadians and to members of the American Association. The committee recommended Sept. 7th and following days as the most convenient date for the meeting to be held. This date will be finally determined at the meeting of the General Committee of the association to take place in London on Nov. 5th, when the president for the coming year will be elected.

TENDENCY TO BENDING OF THE BONES IN CRETINS UNDER THYROID TREATMENT.

BY T. TELFORD-SMITH, M.A., M.D. DUB.,
MEDICAL SUPERINTENDENT, ROYAL ALBERT ASYLUM, LANCASTER.

ONE of the most marked among the many other signs of development produced in cretins during the administration of thyroid preparations is the rapid increase of growth in stature which takes place—an effect which is all the more striking when we remember that in these cases growth is almost at a standstill previously to treatment. The boy, notes of whose case I published in 1894,[1] grew four and a quarter inches in ten months under thyroid treatment, and his

FIG. 1.



The patient at the age of fifteen and a half years (before treatment). Height, 3 ft. 6 in.; weight, 4 st. 2 lb.

[1] Case of Sporadic Cretinism Treated with Thyroid Gland, Brit. Med. Jour., June 2nd, 1894.

brother grew four inches in less than a year under similar treatment, as recorded by Dr. T. C. Railton.[2] As a point in the practical treatment of these cases I have found that during thyroid treatment this rapid growth of the skeleton leads to a softened condition of the bones, resulting in a yielding and bending of those which have to bear weight; and as cretins under treatment become much more active and inclined to run about this tendency to bending has to be guarded against. The girl, aged seventeen and three-quarter years, of whom photographs are reproduced, shows this increased bending of the legs very well. She has now been continuously under thyroid treatment for two and a quarter years, taking one five-grain tabloid (B. and W.) daily with her dinner, and

FIG. 2.

The patient at the age of seventeen years and nine months (after two and a quarter years' thyroid treatment). Height, 4 ft. 1½ in.; weight, 4 st. 10½ lb. Showing increased bowing of legs and enlargement of knees and ankles.

during that period she has grown seven and a half inches (from 3 ft. 6 in. to 4 ft. 1½ in.). During the period of two years previous to treatment she had only grown an inch[3] (from 3 ft. 5 in. to 3 ft. 6 in.). (Fig. 1.) For the last few months she has been kept as far as possible at rest, so as to prevent, to some degree, this bending of the legs. The second photograph shows that the bending takes place most markedly in the tibia and fibula, the increased size of the ends of these bones at the ankle and knee being very noticeable. Several of the photographs of cretins before and after thyroid treatment exhibited by Dr. W. R. Parker, of Kendal, and Dr. John Thomson, of Edinburgh, at the meeting of the British Medical Association at Carlisle, showed this increased bending of the legs very clearly, and the condition was remarked upon and discussed. Mr. Victor Horsley showing in this connexion slides to illustrate rickets produced in rabbits by Hoffmeister, and in sheep and goats by von Eisenburg, by removal of the thyroid gland.

While in rickets, however produced, there is perverted and delayed ossification resulting in softening and bending of the bones, under thyroid treatment in cretinism there is rapid resumption of growth in the skeleton, leading to softening, which is most marked in the long bones and at the epiphyses. Cretins under thyroid treatment should, therefore, be watched for any commencing bending of the bones of the legs, and if such appears the child should for a time be hindered from walking or the legs supported by light splints. As an additional means of assisting the rapid bone and other growth the diet should be generous and the child should get plenty of sunlight and open air. The administration of cod-liver oil and Parrish's food would probably prove beneficial at the same time.

Lancaster.

[2] Sporadic Cretinism Treated by Administration of the Thyroid Gland, Brit. Med. Jour., June 2nd, 1894.

[3] Cases of Sporadic Cretinism Treated by Thyroid Extract, by Dr. T. Telford-Smith, Journal of Mental Science, April, 1895.

A CASE OF ADVANCED CRETINISM TREATED BY THYROID EXTRACT.

BY H. E. DRAKE-BROCKMAN, F.R.C.S. EDIN.,
SURGEON-CAPTAIN, INDIAN MEDICAL SERVICE.

AT the present time, when the treatment of certain diseases by the administration of thyroid extract is more or less *sub judice*, the following case of a marked cretin which came under my care and was subjected to this treatment may prove of interest to the profession.

A boy, caste Dhobi, was one day brought to me by his father for examination suspected of being an idiot. A cursory inspection of the youth was sufficient to reveal his true condition—viz., that of a marked cretin. It appeared on inquiry from his parents that the disease first showed itself in the lad about six years before in the shape of deafness, followed by dulness of intellect, slowness in perception of things said to him, dilatoriness in movement, coupled with a want of coördination, which ultimately developed into the usual waddling gait. At the first inspection he presented more or less all the typical symptoms of a cretin, in that he had the usual heavy, dull expression of countenance, the mouth half open, with saliva dribbling over the chin, the tongue protruding between the teeth, the eyelids puffy, with a very platyrrhine nose and brachycephalic head; his figure was squatty, but not much deformed. There was slight tendency to exophthalmos, the thyroid was distinctly enlarged, and the superficial skin covered with distended veins, more so to the right side, where the tumour was markedly tense and somewhat elastic to the touch, rather suggestive of the presence of cystic growth. Over the point of most prominence on auscultation there was a marked bruit, slightly musical in character. Measurement of the neck round the tumour accurately taken showed the circumference to be 14⅜ in. The heart sounds were normal, and so were those of the lungs, with the exception of slight stridor noticeable over the enlarged thyroid, owing probably to pressure of the growth on the trachea. The urine was also analysed and was found to be of specific gravity 1025, reaction acid, and contained neither albumin nor sugar. Towards the end of November last the thyroid treatment was begun by administration of three grains of the dry extract by the mouth daily. After the lapse of one month the boy was again thoroughly examined and the following note was made by me at the time: "The boy's whole appearance has improved most markedly, his sense of hearing and perception of things said to and around him is much acuter, the eyelids are much less puffy, and his gait has also lost some of its waddling character; he has

been able to walk four miles daily for the last week. The thyroid enlargement also was carefully measured by me to-day in the exact spot as before and was found to be 12⅜ in.; the tumour itself has become much softer, and the bruit mentioned above has very nearly disappeared." It will be seen from the note taken that the thyroid enlargement had diminished fully 2 in. since the commencement of the treatment—that is, in the space of one month the gland had markedly atrophied—and the general condition of the lad, both physically and mentally, has shown marked improvement. Seeing that the treatment had acted so beneficially I decided to increase the dose to five grains daily, which was accordingly done. A whole month was allowed to elapse from this date, the lad being under daily observation as before and the medicine daily administered. At the end of the month—that is, two from the date of the commencement of the treatment—a thorough examination of the boy was again made, and the following note was registered: "The bodily condition of the patient has again showed steady improvement, his hearing and intellect are much improved, the boy can run now, and has hardly anything left of the waddling gait. The measurement of the tumour was again taken to-day and found to be only 12in. and the neck of the patient has assumed a more or less normal aspect; there is no bruit audible at all in the spot previously noticed. The marked and steady improvement registered in the last note still continues." The treatment, as above indicated, was continued without stopping daily for another month, at the end of which a still further improvement was noted in every respect, the boy could at once interpret what was said to him and reply to it in an audible voice, and with clearness too. At this examination I noticed a marked absence of patellar reflex, this being a prominent symptom in tabes dorsalis, in which it had been stated by the late Professor Brown-Séquard that orchitic fluid had worked wonders. I decided to try the effect of it in this case, and so administered to him five grains of didymin daily as well as the thyroid extract. After the lapse of a fortnight there were signs of the reflex returning, he certainly became much stronger on his legs, and could run if desired; he latterly used to walk about eight miles daily to come to see me, when, to my regret, having to leave the district on transfer to another station, I have in consequence lost sight of the lad, and thus a most interesting inquiry has been unavoidably and abruptly terminated. I took the opportunity of obtaining a sample of the water usually consumed by the patient and his family and sent it for analysis to the chemical examiner, who found that the water contained 44·8 grains per gallon of total solids, the greater portion of which was lime salts. There is not much information to be gained by the family history of the patient, which is briefly as follows. The father is alive and free from any disease, as I have had ample opportunities of verifying for myself. The mother died years ago, and used to suffer from what is described as epilepsy. There is no history of syphilis; there are two children, both males, the elder a youth of about nineteen years of age, and perfectly healthy, whom I have also seen for myself; the younger son (this patient) a lad of about sixteen years old, who is a marked cretin. It is interesting to note that the boy's home is at the foot of the hills in a kind of country in which cretins are usually expected to be found, and I hear, on inquiry, though I have not been able to verify it, that there are a few in the neighbourhood.

Since the above case I have come across one somewhat similar, treated and reported by Dr. Rushton Parker, of Kendal, quite independently of and unknown to me, which I have read with great interest, though the two cases differed somewhat materially in many little ways, as will be seen on reference to them; both cases, however, improved so wonderfully under this treatment that it gives one great hopes that something more than temporary relief may be ensured by it. The case above narrated has a great many points of interest attached to it, in that it was an advanced one, not only in years, but in severity of its symptoms, the rapid diminution, which I presume was simple atrophy of the thyroid tumour after the administration of the drug, also the rapid and marked improvement which took place in both the patient's mental and physical condition, notwithstanding the comparatively short time that he was subjected to the thyroid treatment. Though I am fully aware that the case is more or less incomplete, still the benefits derived by the patient at my hands under this treatment in so short a period afford me sufficient excuse for bringing this case to the notice of the profession, in the hope that others who have greater facilities than myself for treating the disease may be induced to give it a fair trial and record their experiences.[1]

Bengal.

NOTES ON A CASE OF CRETINISM SUCCESSFULLY TREATED WITH THYROIDIN.

BY C. MORTON ANDERSON, M.R.C.S. ENG.

IN the early part of 1893 I had read with much interest the accounts published in the English medical journals of several cases of cretinism which had been successfully treated by the administration of the thyroid gland of the sheep or of some of the many preparations which were being made from that gland. In the latter part of that year I had an opportunity through the kindness of Dr. Ord and others of seeing many of those patients whom I had previously been reading about, as well as several others, and of judging of the results for myself. I was very much impressed with what I saw, the change for the better in many of the patients being marvellous; but I do not remember seeing one, especially in so old a child, in which the result of treatment was more striking than in the case related in the following notes. The accompanying illustrations from photographs, though very imperfect (being my first attempt at photography), will perhaps show better than words the physical condition of the patient before and after treatment.

The patient, a girl aged eleven years, first showed symptoms of cretinism when about three years of age. She had been under professional treatment in various ways previously, but with no good result. Early in 1893 I had put her on a strict dietary for nearly three months but with very little benefit, and on Jan. 1st, 1894, she weighed 4 st. 7 lb. in her ordinary clothes, and measured 3 ft. 4½ in. in height, a gain of three-quarters of an inch having been made during the previous year. This gain, though small, had been the greatest she had made for some years. On Jan. 16th, 1894, her features were thick and blunted and she was excessively corpulent. There were large supra-clavicular folds of fat and there was a large hump of the same substance over the lower cervical and upper dorsal vertebræ. She felt like a dead weight when lifted, and the skin, which was cold to the touch, felt harsh and dry. Her hair was long and thick; her appetite was poor, but the bowels were fairly regular and she slept well. The child's intelligence was decidedly dulled and slow, and there was great want of animation; she drawled her words and spoke slowly and in a deep, peculiar voice. She had been at school for a year and a half but could only spell a few monosyllables or add up three or four figures. The circumference of the chest was 24½ in. and of the abdomen 27½ in. (See Fig. 1, which was taken at this time.) The pulse was 60. I ordered 2½ gr. of thyroidin to be given every second day, which I increased to 5 gr. on Jan. 23rd. On Feb. 2nd the temperature was 98·6° F., and the pulse 78. She was much brighter and more animated. The clavicular folds and the cervical hump were decidedly softer and rather smaller. The digestive functions were not in the least disturbed and the appetite had improved. I ordered one 5-gr. tablet daily. On Feb. 23rd the patient weighed 4st. 1lb. The temperature was normal, the pulse 100, and the skin moist and supple. She was very much sharper and more animated and cheerful, becoming quite hilarious and playful. The abdomen was not nearly so large and the clavicular folds were fast disappearing, but the cervical hump looked quite as prominent. I ordered a 5-gr. tablet to be given each morning and half a tablet each afternoon. On March 14th the patient's height was 3 ft. 5 in. and her weight 3 st. 12½ lb., being a gain of half an inch in height and a loss of 8½ lb. in weight in two months. The child sometimes seemed rather pale and weak. She was ordered to take only one tablet daily. On the 21st the patient seemed better and was ordered to resume taking one and a half tablets daily. On April 20th her height was 3 ft. 6 in.

[1] We regret that the photographs sent by Surgeon-Captain Drake-Brockman to illustrate the good progress of this case were not suitable for reproduction, but the notes tell the story perfectly clearly without them.—ED. L.

and her weight barely 3 st. 10 lb. The clavicular folds had quite disappeared, the cervical hump was almost gone, and the spines of the vertebræ could easily be felt through it The abdomen was nearly normal in shape. The patient was quite bright, animated, and natural, but inclined to be thin. One tablet every second day was now ordered. On Aug. 11th her height was 3 ft. 7½ in., her weight being 3 st. 13 lb.—a

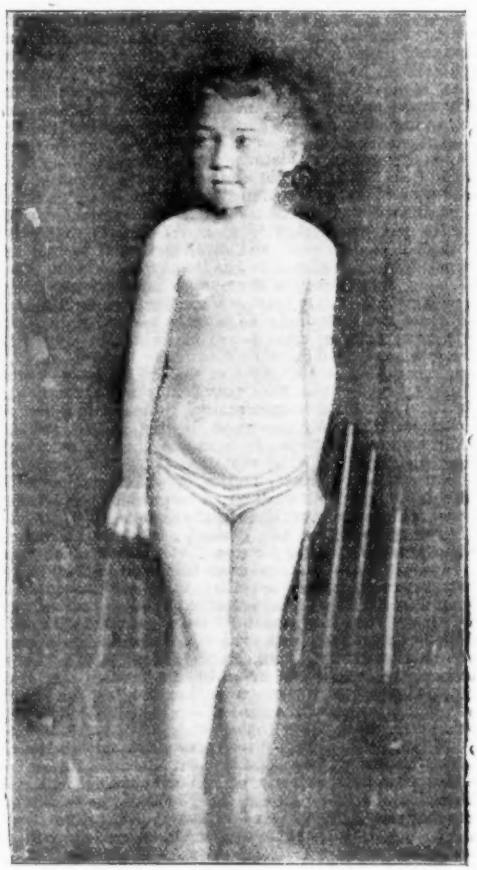
FIG. 1.

Before treatment.

gain of 3 in. in height and a loss of 8 lb. in weight in a little less than seven months. The temperature and pulse were normal, the skin was fresh and healthy, the appetite very good, and the bowels regular. She never had bilious attacks now, though she was formerly very subject to them. On Nov. 15th the patient's general health was good and the skin and complexion were quite natural. The cervical hump had quite disappeared, the back in that region being like that of an ordinary child. She had grown 1½ in. in the last three months and had lost ½ lb. in weight. For the last three weeks she had only been taking half a tablet daily. The dose was now reduced to one-third of a tablet. On March 1st, 1895, the patient was in perfect health and in good spirits and quite as sharp and intelligent as any child of her age and education should be. Although I considered her cured I advised her to continue to take one-third of a tablet daily, so as to guard against the possibility of a relapse. She had gained about 3 lb. in weight since November, and her height was 3 ft. 10½ in. It will be noticed that in the thirteen and a half months that had elapsed since the commencement of treatment (Jan. 16th, 1894) the child had grown exactly six inches in height, besides which all symptoms of cretinism had completely disappeared (see Fig. 2, which was taken at this time). On Aug. 24th her height was 3 ft. 11¾ in., and her weight 4 st. 8½ lb. She was still taking one-third of a tablet daily and was in perfect health, attending school regularly. Her schoolmistress had sent home a most excellent report for the term both as to the child's progress and as to her ability for learning. Up to January, 1896, the improvement had been permanent, though the rate of growth had dropped to about ¼ in. per month, which I consider ample. She was taking a quarter of a tablet daily now and often missed a dose.

There was no history of any symptoms like cretinism to be obtained in either her father's or her mother's families, nor could I get any history of goitre. Her mother had a cervical hump like the patient, though not so large in proportion, and there were no clavicular folds. She was not at all inclined to be stout till after her first three children were born, but afterwards she had developed an enormous amount of adipose tissue, more especially from her waist downwards. I tried dieting her carefully for some months, and afterwards I treated her with thyroidin for four months, but the result was *nil* so far as the obesity was concerned, and I found that the drug had a rather depressing effect. I should mention also that both parents are particularly sharp, bright, and intelligent. There are five other children in the

FIG 2



After treatment.

family, one older and four younger than the patient. All are bright, intelligent, and well-grown for their ages, but all are inclined to be rather stout as young children, though not so when they grow older.

Christchurch, New Zealand.

DEVIZES COTTAGE HOSPITAL. — The annual meeting of the subscribers to the Devizes Cottage Hospital was held on Sept. 23rd under the presidency of the Mayor. The report showed an increase in expenditure and a decrease in revenue. The medical staff were re-elected.

THE USE OF DECALCIFIED BONES IN THE TREATMENT OF WOUNDS.

BY F. W. ROBINSON, M.D. ABERD., M.R.C.S. ENG.,
HONORARY SURGEON TO THE HUDDERSFIELD INFIRMARY.

THE use of an animal dressing in the treatment of wounds was suggested in the method of "sponge-grafting," adopted, for a time by many surgeons. In principle this promised much success, but in practice it failed to realise what was anticipated from it. Professor Hamilton, who first introduced sponge-grafting to the profession, claimed for it the following advantages: (1) that, being porous, it imitated the interspaces of blood coagula and fibrinous lymph; (2) that, being an animal texture, it would be slowly absorbed; and (3) that, being pliable, it would easily adapt itself to the surface of wounds. In cases quoted by him and others granulation tissue was shown to grow into the pores of the sponge and osteoclasts were demonstrated as lying against the trabeculæ, which, however, were only very slowly absorbed. Sponge-grafts included in the peritoneal cavity became adherent to the intestine and showed the same tendency towards organisation, vascular granulation tissue growing into the grafts. These experiments are useful as showing that a dressing of animal tissue exerts a healthy influence upon wounds by stimulating, directing, and supporting the growth of their granulations; and there is no doubt that if sponge were more absorbable it would be a valuable dressing and would secure more general adoption. The absence of this quality is, however, fatal to its usefulness, and completely antagonises the many useful and necessary qualities it otherwise possesses. In order to be effective when applied to a wound an animal dressing ought to approach as nearly as possible to the conditions present in the physiological repair continually taking place in the living body. These latter differ from the processes occurring in a granulating wound inasmuch as absorption and repair are intimately correlated, and this natural affinity between the two should guide us in the selection of any dressing. In the ordinary mode of healing by granulations it is found that absorption is in a large measure lost; therefore the addition of an absorbable dressing of animal texture would seem, *par excellence*, to be the one thing necessary to fulfil the conditions required. The above considerations led me to try the effect of decalcified bones in the treatment of granulating wounds. For this purpose I used the most cancellous portions of the bones of an ox, thoroughly depriving them of their fat, decalcifying and preserving them in a 1 in 20 solution of carbolic acid. Properly prepared the bone should be as soft as sponge, porous, and pliable. I have used the dressing in many cases and feel fully justified in recommending it. The impressions left upon my mind by the use of "decalcified bone dressing" may be summed up as follows: (*a*) it may be used for any kind of granulating wound and has been very successful in obstinate fistulæ and callous ulcers; (*b*) in no case has it caused the slightest irritation; on the contrary, any existing irritation has subsided on the use of the dressing and the temperature has fallen—this applies even to fistulæ which have been left five days without re-dressing; (*c*) it brings about a healthy state of the granulations, and the discharges from the wound diminish; and (*d*) the dressing is gradually absorbed, melting down at the base and sides. The rate of the absorption varies, but the healthier the granulations the more gradual the absorption, so that in the treatment of a wound the dressing requires to be re-applied less often in the later stages. Where the wound is unhealthy and the secretion of pus free the dressing is rapidly absorbed and may require changing daily, but in a more favourable condition it may be left for four or five days. I use the dressing in the following ways. For open ulcers I shape a piece to fit the cavity as nearly as possible, and pack up any deficiencies with small pieces. For superficial ulcers I shave off fine grafts until the surface is covered. For fistulæ I tear off small portions and pass them down until they are filled. In packing fistulæ I use a probe with a flat button-like end, as the ordinary probe is liable to pass through the material.

It would be impossible to give descriptions in detail of cases treated by this method, therefore I will only briefly allude to the following cases, which were very marked in their results. 1. Two abdominal fistulæ following laparotomy for pyo-salpinx had existed for fifteen weeks before the application of the dressing, the length of the fistulæ when they were first dressed being one and a half inches and two and a half inches respectively. They healed in a fortnight, one being dressed three times and the other four times. 2. An abdominal fistula following oöphorectomy had been present for one month. The fistula when first dressed was one and a half inches long, and it healed in seven days, being dressed twice. 3. A tuberculous fistula of the neck following removal of glands, about an inch long, healed in five days with only one dressing. 4. A callous ulcer over the right tibia in a patient suffering from Bright's disease was under treatment for two months without any effect. I then excised the edges of the ulcer and applied the dressing for the first time. A fortnight after the operation the ulcer had almost completely healed. Lastly, I would allude to the influence of the dressing on superficial ulcers when applied in the form of grafts. It acts in the same way as an epithelial graft, and in some instances the effect has been remarkable. In one case the whole surface was mapped out by fine blue lines of young epithelium after a first application.

I know that it is still too early to pronounce definitely upon the value of the dressing, as this can only be proved by the practice and experience of many.

Huddersfield.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF DIPHTHERITIC CONJUNCTIVITIS.

(Under the care of Mr. PERCY FLEMMING.)

AN ill-nourished child, aged four months, was brought to the University College Hospital on Aug. 4th, 1897. No very clear history could be obtained. The child was said to have had "weak eyes" since birth, and on the day before he was brought to the hospital it was noticed that the right eye had become swollen. On examination it was seen that there was much swelling of the eyelids on the right side. On attempting to separate them they were found to be to some extent united by a tenacious and distinctly fibrinous exudation. On everting the lids they were felt to be very indurated and stiff, and their conjunctival surfaces were seen to be covered completely with a firm greyish membrane, marked here and there with small ecchymoses. This membrane could not be stripped off readily, but fragments could be removed without causing any bleeding. There was a small amount of discharge not purulent in character. The cornea was hazy, but not ulcerated. The left eye showed some conjunctivitis, but no membrane was present, the appearance of the eye suggesting a late stage of a purulent ophthalmia. There was a thick discharge from the nose. The general condition of the child was bad, vomiting and diarrhœa being present, and much albumin was found in the urine. The case was regarded as one of true diphtheritic conjunctivitis, and the patient was immediately admitted to the hospital. The eyes were ordered to be bathed frequently with quinine lotion (four grains to the ounce), and a solution of atropine was dropped in at intervals. The same local treatment was continued on the 5th, and on the afternoon of that day 4000 units of diphtheria antitoxin were injected. On the 6th it was obvious that the membrane on the conjunctiva was much less marked; the discharge was thin and serous, and the appearance of the cornea was unchanged, but the general condition of the child was certainly worse; the diarrhœa and vomiting were more frequent and severe. The same evening the discharge from the right eye was distinctly purulent. On

the 7th the local condition was markedly improved, as scarcely any membrane was left on the lids; where the membrane had separated the conjunctival surface had a worm-eaten appearance; the cornea was still hazy. At 5 30 P.M. on the 7th the child died rather suddenly, the vomiting having persisted and the diarrhœa having become worse, in spite of treatment. At the time of admission (Aug. 4th) cover-glass preparations were made and numerous diplococci were found, but no bacilli diphtheriæ. Some cultures taken immediately after admission showed typical diphtheria bacilli in abundance. A culture taken subsequently to the free use of the quinine lotion, but before the injection of the antitoxin, gave negative results, as did all later attempts at cultivation.

Remarks by Mr. FLEMMING.—There is, and has been, a good deal of difference of opinion with regard to membranous conjunctivitis. Most authorities, following von Graefe's original description,[1] divide the cases of membranous conjunctivitis into two groups, the first including cases of true diphtheritic inflammation, characterised clinically by (*a*) extensive brawniness of the lids; (*b*) the presence of a membrane which infiltrates the substance of the lids, subsequently separating by suppuration, leaving a raw granulating surface; and (*c*) running a severe course with constitutional symptoms. The second group contains cases of simple membranous conjunctivitis, characterised by the presence of a pellicular membrane, easily detached from the underlying red but not necessarily raw surface; these cases run a mild course. Other authorities—for example, Nettleship[2]—have argued that all cases of conjunctivitis with false membrane are diphtheritic, and that cases occur showing all intermediate stages between the two varieties above mentioned. At the present time the presence of Löffler's bacillus diphtheriæ is supposed to be the true criterion of the diphtheritic nature of an inflammation. I am not aware of any systematic examination of a series of cases of membranous conjunctivitis with a view to determine the presence of the bacillus. Cases have been recorded which clinically were to be regarded as "diphtheritic" (in the sense used by von Graefe) in which the bacillus was not found; and, on the other hand, the bacillus has been present in cases which would have been regarded as cases of simple membranous conjunctivitis. From a clinical and therapeutic point of view the value of the bacillus in diagnosis is somewhat diminished by the fact that it varies much in virulence, and these variations are unaccompanied by any morphological difference. My experience of this and other cases leads me to the conclusion that the clinical picture of diphtheritic conjunctivitis is quite definite, and that all cases of membranous conjunctivitis can be divided for the purpose of prognosis and treatment into the true "diphtheritic" and the simple membranous, and this is all that is really needed. This case is also of interest from the point of view of treatment. Quinine lotion has been especially advocated by Mr. J. Tweedy[3] on theoretical and clinical grounds; and as in this case no bacilli could be demonstrated after its employment additional evidence in its favour is furnished from the purely pathological standpoint, though doubtless the negative result later is partly to be attributed to the antitoxin injection. Local antiseptic treatment is clearly indicated in these cases, in addition to antitoxin injections, as other pathogenic organisms are almost invariably present. I am indebted for the bacteriological examinations to Mr. H. J. Curtis, assistant to the Professor of Pathology in University College.

[1] London Medical Record, 1860, vol. i., p. 200.
[2] St. Thomas's Hospital Reports, 1880.
[3] THE LANCET, Jan. 24th, 1880, p. 125, and Feb. 21st, p. 282.

BRITISH HOSPITAL, BUENOS AYRES.

THREE CASES OF ABSCESS OF THE LIVER.

(Under the care of Dr. J. O'CONOR.)

THE first of these is a good example of an ordinary case of abscess of the liver, the signs and symptoms were distinctive, and the operation of evacuating the contents of the abscess was rendered extremely simple by the complete adhesions which had occurred between the liver and the abdominal wall over the abscess. The two other cases are in striking contrast to this. In the second case the co-existence of an abscess in the liver with an empyema naturally suggested that the latter was the result of the abscess, especially as all the symptoms were greatly relieved for three weeks after operation. Though a second abscess of the liver was suspected, it was not found even after repeated searches with an aspirating needle, a sufficient proof of the untrustworthiness of this method of looking for small abscesses in this organ. The circuitous route taken by the pus to reach the right pleural cavity is very remarkable. In the third case the difficulties of diagnosis were great, especially in a country where enteric fever is endemic.

CASE 1. *Abscess of the liver; hepatotomy; recovery.*—A man, aged thirty-eight years, was admitted into the British Hospital, Buenos Ayres, on Oct. 15th, 1892. For the previous six weeks he had suffered from nocturnal fever, occasional shivering fits, loss of flesh, sweats, and a constant pain in the right sub-costal region, with an occasional stabbing pain near the inferior angle of the scapula. On examination a slight fulness was visible below the right costal margin; on palpation there was marked tenderness, with fluctuation and downward movement on inspiration, and on percussion there was absolute dulness. The temperature in the evening on the day of admission was 102·6° F. The tongue was furred; there was much thirst, and he had profuse perspiration. On the following morning chloroform was administered and a two-inch incision made over the swelling. On incising the peritoneum, as the liver was found to be adherent, a director was pushed into the liver substance; at a depth of a quarter of an inch an abscess was struck and pus escaped along the groove in the instrument; the opening was further enlarged by Hilton's method, and two pints of grumous pus were evacuated, a large drainage-tube was then inserted, and the cavity was irrigated with warm Condy's fluid. By the third evening constitutional symptoms had disappeared, and he was discharged recovered on the forty-first day. He has frequently reported himself during the past four years, and remains in normal health. He suffered from enteric fever and dysentery in 1891. There was no history of malaria.

CASE 2. *Abscess of the liver; empyema; trans-thoracic hepatotomy; death; necropsy.*—A man, aged twenty-one years, was admitted into hospital on Aug. 10th, 1893, complaining of cough, dyspnœa, and severe pain on the right side of the thorax. The patient's past history was excellent, with the exception that he had suffered from an attack of enteric fever in 1892. Three weeks before admission he had to stop work owing to pain, rigors, sweats, and fever. A week later he developed a most incessant cough, with much offensive sputum. On examination after admission the patient was seen to have a very anxious look; he was bathed in perspiration; the tongue was furred and dry; the temperature was 103·4° F.; the pulse was 120; and the respirations were 40. He had a constant cough, with most fœtid expectoration. He lay on his right side, and the least movement caused alarming dyspnœa. The right side of the thorax did not expand on inspiration, and inter-costal fulness was visible from the third rib downwards. There was absolute dulness extending anteriorly from the third costal cartilage to the umbilicus, and in the axillary line almost to the level of the iliac crest. On auscultation there was absence of breath sounds below the third space. Bronchophony and pectoriloquy were well marked. The patient complained very much of tenderness on percussion, and there was absence of tactile fremitus. The liver was felt enlarged down to the level of the iliac crest, but no fluctuation could be detected below the ribs. The temperature on the evening of admission was 105·4°, and during the following twenty-four hours he had several rigors. On the 12th an aspirating needle was inserted into the right pleural cavity, and a few drachms of chocolate-coloured pus were drawn off. Chloroform was immediately given; three and a half inches of the sixth rib were excised in the axillary line, and about four pints of most fœtid pus were evacuated from the pleural cavity. The diaphragm was found to be pushed upwards by a tense fluctuating swelling; a careful search was made for an opening in it, but none was found. The diaphragmatic pleura and diaphragm were next incised, and as the liver was found to be adherent, a large curved trocar was inserted, and six pints of grumous pus were removed. A large drainage tube was placed in the abscess cavity, and no sutures were introduced into the external wound. On the first evening after the operation the temperature was 101·2°, the breathing was greatly relieved, and the cough was considerably diminished.

After this the abscess cavity was irrigated twice daily, and by the tenth day all symptoms of septic poisoning had vanished, the temperature remained normal, no pus came from the cavity in the liver, and there was only a slight serous discharge from the pleura; cough and expectoration had ceased. There was nothing to record for the following twenty days; the patient ate well, rapidly gained weight and strength, and was allowed to be out of bed. On Sept. 10th the temperature suddenly rose to 102·5°. A large leaden probe was immediately passed into the liver sinus, which was found to be patent, contained no pus, and had contracted considerably. The probe was then moved freely about in the pleural cavity, some adhesions were broken down, but nothing was found to account for the temperature. During the night the patient had a rigor, and on the following morning as the temperature was 100° the same searching process was repeated. An aspirating needle was inserted into the liver at five different spots, but no pus was struck. On the 12th about a teaspoonful of pus was noticed in the dressings. The pleural cavity was again examined and the aspirating needle again made use of, but all in vain. Constitutional symptoms gradually returned. A few drachms of pus were noticed at each dressing. Search for the cause was frequently made, but in vain, and the patient died on Oct. 20th.

Necropsy.—At the post-mortem examination a healthy granulating sinus was found passing obliquely downwards from the upper border to the centre of the liver substance; this was all that remained of the large cavity out of which six pints of pus had been evacuated. Three inches internal to this sinus a small abscess was found containing two ounces of pus, this was quite superficially located in the upper border of liver, beneath the sixth chondro-sternal articulation, from this a small sinus passed through the diaphragm and opened into the anterior mediastinum, where a localised collection of some three ounces of pus was found, and this in turn communicated by a small opening of about the diameter of a cedar pencil, with the right pleural cavity, and around this aperture a few drops of pus were seen. There was no trace of any communication between the small abscess cavity and the healthy granulating sinus.

CASE 3. *Abscess of the liver; trans-thoracic hepatotomy; recovery.*—A sailor, aged thirty-seven years, was admitted to hospital on June 2nd, 1893, complaining of pain in the abdomen, diarrhœa and fever. Ten days before admission he stated that he was suddenly seized with cramps and diarrhœa unaccompanied by rigors or sweats. There was a history of dysentery ten years before; he had never had malaria or enteric fever. On admission the temperature was 100·6°F., the tongue was furred in the centre; he complained of headache, and pains in the back and legs, there were marked gurgling and tenderness all over the abdomen, no rose spots and no enlargement of liver or spleen were observed; the other organs were normal. With these symptoms and the history of onset, enteric fever was diagnosed, he was placed on the usual milk diet, and a quinine mixture was ordered. During the following four weeks, nothing occurred to alter the diagnosis. The temperature ranged from 100° in the morning to 103° at night; there were no sweats or rigors; the diarrhœa, which he had for some days after admission, ceased and was succeeded by constipation. The liver and spleen were percussed and palpated twice weekly, but no enlargement or particular tenderness was noticed. On July 1st the night nurse reported that the patient had perspired profusely during the night, and as the nocturnal temperature did not show any tendency to diminish, tuberculous ulceration of the intestines was suspected. The night sweats continued during the month of July, the lungs were frequently examined, but nothing abnormal was found. On the 28th for the first time, he complained of a dull pain in the right scapular region, and as the pain was increased on deep inspiration, pleurisy (tuberculous) was suspected, but on examination no evidence of it could be elicited, and no appreciable enlargement of the liver could be detected. On Aug. 14th the patient was extremely despondent, very emaciated, and was sweating continuously; a short hacking cough had been noticed for a few days; and on examination on this date marked tenderness was for the first time noticed in the right ninth intercostal space, a little in front of the axillary line. At last it was decided to explore the liver; a long hypodermic needle was inserted at the tender spot, it soon entered a cavity, and a few drops of grumous pus were withdrawn. The needle was left *in situ*, and a straight sharp-pointed bistoury was entered beside the needle, into the abscess cavity, the needle was withdrawn, and a closed sinus forceps was pushed in along the blade of the knife; when the end of the forceps was felt free in the cavity the knife was withdrawn, the blades of the forceps were forcibly separated, and eight ounces of pus were evacuated. A medium-sized drainage-tube was then passed into the abscess cavity, and the latter irrigated with warm Condy's solution until the fluid returned clear. A rapid convalescence ensued, and he was discharged cured on Sept. 26th. A month later he reported himself fit to resume his work as boatswain.

Remarks by Dr. O'CONOR.—The manner in which the abscess was opened in Case 3 may appear to be somewhat rash, but the patient was in such a low state that it was questionable if he would survive an anæsthetic.

GOVERNMENT CIVIL HOSPITAL, HONG KONG.

A CASE OF DELIRIUM TREMENS; SUDDEN HYPERPYREXIA; NECROPSY.

(Under the care of Mr. J. BELL.)

HYPERPYREXIA is decidedly of rare occurrence in delirium tremens, and when it does appear the prognosis is exceedingly unfavourable, but recovery may result in some of these cases. Dr. A. V. M. Anderson[1] has reported a case of alcoholic delirium in which an axillary temperature of 108·4° F. was noted, yet by the persevering use of ice-packs the temperature was brought down to normal and recovery ensued.

A Danish captain, aged forty-seven years, was admitted to the hospital at noon on Aug. 10th suffering from the effects of "a jolly good bust," as he described it. His temperature was normal and he was very cheerful, being still slightly under the influence of liquor. Vomiting being his chief complaint he was given effervescing mixture with fifteen minims of tincture of opium every three hours. A mustard plaster was applied to the epigastrium and he was ordered a low diet. In the evening he was better, the vomiting had ceased, and he had been able to take some milk and chicken broth. His tongue and breath were still very foul. He was given four grains of calomel and a draught containing half a drachm of bromide of potassium, and twenty minims of liquor morphinæ were given later as he could not sleep. On the 11th he was better, but he had not slept nor had his bowels acted. He was ordered ten grains of compound colocynth pill at once, to be followed by two ounces of Hunyadi water. The effervescing mixture was continued. His temperature was normal, and he was taking his food well. In the evening he had forty minims of liquor morphinæ. He was now quite sensible and quiet, and expressed himself as feeling much better. On Aug. 12th Mr. Bell was sent for at 9 A.M. and found him dressed and in a great hurry to be off to see his Consul. His temperature was normal, and the bowels had acted freely, but he had not slept. He thought the crew were outside trying to get at him, and he had the usual restless movements and talking of a patient suffering from delirium tremens, though he was quite easily managed and reasoned with. After a consultation with Dr. Atkinson he was at 10 A.M. removed to the lunatic asylum, walking there himself—a distance of 300 yards. At 12.30 P.M. he had "a fit," became unconscious, and his temperature was found to be 105°. He was at once placed in an ice-sheet, with an ice-bag to his head, and bromide of potassium and antipyrin were ordered every three hours. The temperature, however, rose rapidly to 109·8° at 2 P.M., when he died. The usual injections of ether and strychnia were given as soon as signs of heart failure began.

Necropsy.—The brain and meninges were much congested, but no hæmorrhage could be found. The heart was fatty and the liver was enlarged with commencing cirrhosis. No other lesions could be found.

Remarks by Mr. BELL.—I have ventured to report the case, as this complication is, fortunately, a rare one in cases of delirium tremens, and it is remarkable for the sudden and rapid onset of the hyperpyrexia, which was quite uncontrollable by the usual methods.

[1] THE LANCET, Nov. 24th, 1894, p. 1252.

Reviews and Notices of Books.

Twentieth Century Practice. An International Encyclopædia of Modern Medical Science by leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D. Volume IX. London: Sampson Low, Marston, and Co. 1897.

THIS volume continues the subject of Diseases of the Digestive Organs. The first article is by Dr. Johann Mikulicz and Dr. Werner Kümmel, of Breslau, on Local Diseases of the Mouth; these include diseases of the tongue, of the floor of the mouth, of the gums, of the lips and cheeks, and also tumours affecting the mouth. The sections describing the various forms of tumours met with in this region are particularly interesting and are illustrated by several well-executed drawings.

The reader will find one of the most interesting papers to be the one on Diseases of the Intestines (excluding infectious diseases, parasites, and hernia), by Dr. C. A. Ewald, of Berlin. The article is remarkable for the amount of originality displayed throughout. In speaking of general dietetic measures he sounds a warning note against so-called "diet cards," which have become more and more the fashion during late years, which are supposed to aid the physician and save him the trouble of writing directions for patients, but they are practically made useless by the individual peculiarities of the patient. Dr. Ewald, in the section on Appendicitis, adopts the old classification, Typhlitis and Perityphlitis, and states that he cannot agree with Mr. Treves that "this classification has long since been shown to be unsound," and the reasons for coming to this conclusion are fully given. "The surgeon rarely sees a case of typhlitis, because the large majority rapidly go on to recovery; the cases seen by him are those of perityphlitis or of appendicitis, the symptoms of which are the same as those of typhlitis, and which can be differentiated from uncomplicated inflammation of the cæcum only by the fact that it is not readily recovered from, and for that reason comes under the notice of the surgeon." Equally interesting are the remarks on Intestinal Obstruction.

In a treatise on medicine it is extremely difficult to deal satisfactorily with those subjects which lie in the borderland between medicine and surgery. The surgical treatment of any condition should not be excluded entirely, or the presentation of the subject will be utterly one-sided and incomplete, and, on the other hand, to describe fully the surgical procedures which may be necessary would unduly increase the size of the work. In this volume this difficulty has been solved, on the whole, satisfactorily by Dr. V. P. Gibney and Dr. J. B. Walker, of New York, the authors of the article on Hernia. The descriptions are good, clear, and complete, and the treatment deals to quite a sufficient extent with the surgical portion of the subject. There are, however, a few points in the article which we consider of enough importance to notice in detail. In the account of "partial enterocele" "Littré's hernia" is given as a synonym, but the form of hernia described by Littré was, as has been pointed out by Sir William MacCormac, a hernia containing a Meckel's diverticulum, and to this form should the name of Littré's hernia be limited. The true partial enterocele has been named a "Richter's hernia" from the name of the surgeon who first described it fully; the two forms are entirely different in their origin and should be carefully kept distinct. The definition of a strangulated hernia given by the authors on page 334 is as follows: "A hernia is strangulated ..... when its neck has become so compressed that it can no longer be reduced into the abdominal cavity, and when at the same time there occurs an arrest of the circulation in the bowel and in its wall." The irreducibility of the hernia is in itself of comparatively little importance and should not be put forward as the chief characteristic of a strangulated hernia, for it may occur without any strangulation; the essential feature of a strangulated hernia is the interference with the circulation in the vessels of the wall of the bowel: even the interference with the flow of the intestinal contents is of less vital and immediate importance. The authors correctly say that the veins are first obstructed and later the arteries, but this persistence for a time of the blood flow in the arteries is not due to "the arterial walls being more elastic," but to the blood pressure in the arteries being so much greater than the pressure in the veins. The extent to which "taxis" should be employed in the treatment of strangulated hernia has always been a difficulty to the inexperienced. An extensive use of the method was justifiable when herniotomy was frequently followed by a fatal result, but nowadays taxis should be used only in recent cases, and only once; should taxis fail immediate recourse should be had to operation. This is now so generally recognised that we are surprised to find the authors advising that taxis "should be continued for not more than five to ten minutes at a time, and then repeated after an interval of thirty to forty minutes up to five or six hours after the onset of strangulation." Such treatment may be successful in relieving a case here and there, but the risk is very great, especially when the facility and safety of herniotomy are considered.

Dr. Alfred Hengel writes on Diseases of the Spleen, but although the various morbid conditions are fairly well described the paper is scarcely equal in general merit to those already noticed.

The next article is on "Diseases of the Liver," by Dr. Mariano Semmola and Dr. Carlo Gioffredi, of Naples. These authors have succeeded in producing one of the best essays on these diseases that we have met with in any publication. We have not sufficient space to review the article with the fulness which it merits, but we would especially draw attention to the section on the General Pathology of the Liver. Peculiarities of the Hepatic Circulation and their Importance in the Pathology of the Liver are first noticed, and then follows a most complete consideration of the relations of the liver and the intestine, pointing out that in the diagnosis of functional gastro-enteric disturbances of obstinate and rebellious character the physician ought never to forget to look for diagnostic points which may reveal the insidious and as yet concealed disturbances of hepatic function as the true cause of the digestive disturbances. Equally interesting are the remarks on the Relation of the Liver to Auto-intoxication. The authors point out that the protective action of the liver is shown most markedly in intestinal intoxication, and that a diminished functional activity of the liver gives rise to auto-intoxication, whilst, on the other hand, should this condition arise from other causes, functional or pathological changes are produced in the liver. The relation of the liver to infections is also discussed, especially with regard to malaria, typhoid fever, small pox, cholera, and septicæmia. The relations of the liver and the blood, kidneys, heart, and nervous system are also duly considered. The General Symptomatology of the Liver is most interesting reading and contains a large amount of information. The classification adopted for the varieties of cirrhosis of the liver is a sound one, being based upon its pathology. Dr. John B. Murphy writes on Diseases of the Gall-Bladder, and his contribution will well repay perusal.

The volume ends with an article on Movable Kidney, by Dr. Kendal Franks, of Johannesburg, South Africa. With regard to the frequency of this condition the author summarises thus: (1) mobility of the kidney is more frequent than is generally supposed (from 3 per cent. to

10 per cent. of adult women); (2) it is found more frequently in women than in men (about six to one); and (3) it is more common in the right than in the left side (about eleven to one); and ascribes the infrequency with which mobility of the kidney is discovered after death to "the more or less post-mortem fixation which takes place." The symptoms of movable kidney are concisely described and the treatment is judiciously considered. Nephrorraphy is only recommended when the symptoms are very severe and no relief is obtained by any external support.

LIBRARY TABLE.

Die Diagnostik Innerer Krankheiten Mittels Röntgenstrahlen. Zugleich Anleitung zum Gebrauch von Röntgen-Apparaten. Von Dr. Med. GEORG ROSENFELD. (*The Diagnosis of Internal Diseases by Means of the Roentgen Rays, together with an Introduction to the Use of the Roentgen Ray Apparatus.* By Dr. GEORG ROSENFELD.) Wiesbaden: Verlag von J. F. Bergmann. 1897. Pp. 98. Price Marks 2.80.—One of the earliest of the utilitarian applications of Professor Roentgen's discovery was its employment for the tracing of needles, bullets, &c., in the tissues of the living body, as well as for the inspection of fractures and dislocations occurring in the extremities, and soon after the adoption of the new method as a recognised means of surgical diagnosis it was found to be capable of rendering much assistance in the more difficult problems connected with the investigation of the contents of the thorax and abdomen. The present volume, by Dr. Rosenfeld, of Breslau, is an important contribution to our knowledge of this part of the subject, giving within moderate compass a very large amount of practical instruction in the methods of examining patients, interpreting the appearances, and managing the apparatus. The opening chapters are devoted to the head, face, and neck, the chief points of interest being the discovery of bullets in the head, of various foreign bodies in the eye, orbit, air-passages, or œsophagus, and of fluid in the maxillary antrum. Most metallic objects are, of course, easily seen; fish bones, however, are only visible under exceptional circumstances. With regard to the thorax Dr. Rosenfeld asserts that the pictures thrown on the fluorescent screen by the Roentgen rays not only give almost as much information regarding the dimensions and relative position of the viscera as can be obtained from a post-mortem examination, but have the further great advantage that the vital movements are distinctly visible. After a minute description of the contour lines of the heart, together with an account of the diversities of its appearance in different individuals as displayed on the screen, he proceeds to show how by means of photography and the fluorescent screen the observer may arrive at measurements of the living heart which are, he says, far more accurate and satisfactory than any results of auscultation and percussion. The method adopted was the placing of metallic sounds on the chest in positions ascertained by viewing the respective images on the screen, and the various positions being marked on the skin the included area was subsequently measured off. Several precautions are mentioned which must be attended to in order to avoid errors. In a considerable proportion of cases it is possible to define even the inferior outline of the heart, and emphysema, which sometimes makes percussion uncertain, does not in the least interfere with inspection by the Roentgen rays. Hypertrophy of the left ventricle and dilatation of the right side of the heart can be immediately recognised; the great vessels are usually difficult to see on account of the shadow cast by the sternum, but aneurysms and dilatations of the aorta come into view as soon as they extend beyond the margin of the bone. Something may be learned regarding the physiology of respiration by observing the motions of the diaphragm. It will be seen, for instance, that during inspiration the heart does not descend with the central tendon of the diaphragm and the phenomena of hiccough present a curious spectacle. The healthy lungs are almost transparent to the rays, but infiltrations are readily perceived, especially those due to pneumonia, gangrene, and tumours; in phthisis the appearances are much less distinct than might have been expected, and considerable practice is necessary for drawing correct inferences in these cases. Passing over some thirty pages which relate principally to the examination of the abdominal viscera we come to a short chapter on the Injurious Effects of the Rays. Dr. Rosenfeld considers that the dermatitis which is sometimes observed is due, not to the rays themselves, but to the brush discharge of high-tension currents. The continuous inhalation of ozone by the experimenters is, however, a more serious matter. When this gas forms a minute proportion of the atmosphere it is believed to be wholesome; but von Binz and von Schulz have proved that when inhaled in quantity it is a poison, producing hæmorrhages into the mucous membranes and pathological changes in the blood-vessels, and it is noticeable that two workers in this field—Professor Oppenheim and Professor Bucka—although habitually in excellent health, both died suddenly. The volume is illustrated with four full-page photo-prints, showing respectively a gangrenous patch in the lung, enlarged mediastinal glands, the thorax and abdomen of a girl, and a young child from the knees to the lower part of the face.

The Yew Trees of Great Britain and Ireland. By JOHN LOWE, M.D. Edin., F.L.S. London: Macmillan and Co. New York: The Macmillan Company. 1897.—If England owes any part of her greatness and supremacy of the seas to the brave old oak which supplied her with ships she ought certainly to venerate the yew, which supplied her with the bows and arrows that helped her to win some of her earliest victories. Yet while the oak has always inspired feelings of reverence and awe the yew has ever been associated with all that is sombre and gloomy. The story of the yew, however, forms one of the most fascinating chapters in our English folk-lore, and the embodiment of Dr. Lowe's investigations in book form will be heartily acceptable to all lovers of the romance of trees. Beginning with a chapter on the etymology of the name and the varieties of the yew the author goes on to deal with its distribution and growth. He discusses the vexed question why the tree is to be found planted in so many places in churchyards, and quotes the various statutes relating to the tree. The hard, tough, close-grained, and durable nature of the wood has caused it to be used for many purposes besides the manufacture of bows and arrows. Formerly it was much used in the manufacture of Tunbridge ware, posts to be fixed in the ground, cogs for mills, and "everlasting axle-trees," as Evelyn has it. The wood was also employed in the making of bedsteads, having gained the reputation of keeping away bugs. Drinking tankards were manufactured from it, and, referring to Pliny's assertion with regard to the ill repute of vessels made from this wood, the author believes that it is possible that wine, if allowed to stand for some time in a new vessel, might extract sufficient poison to be injurious. Taxin, the active principle of the yew, however, seems to be insoluble in water, and at the present day yew is the favourite material for making cups in the Pyrenees. The poisonous nature of the tree has been referred to from early times by Dioscorides, Nicander, Galen, and others, and we have it on the authority of Suetonius that the Emperor Claudian caused an edict to be published to the effect that this tree had the power of curing the bite of vipers. Virgil alludes to the flowers as communicating poisonous properties to Corsican honey, but the author remarks that if the tree existed in Corsica in Virgil's time it must have been for some reason or other eradicated, for he has not met with a

single tree of this species in any part of the island. The question of the poisonous nature of the yew has never yet, so far as we are aware, been definitely settled, and the statement by Dr. Lowe that "every part of the plant is more or ess poisonous with the exception of the red mucilage surrounding the ripe seeds" is an important one. A writer in Knight's English Encyclopædia says that the fruit of the yew may be eaten with impunity, and the statements with regard to the poisonous nature of the plant are most conflicting. It has been said that small doses of the leaves of the plant have an effect similar to that of digitalis in reducing the circulation. The author's experiment made upon himself with taxin would show "that it is a cardiac tonic of no mean value. The heart's action is decreased in frequency by small doses such as 1-20th to 1-8th of a grain at the same time that the cardiac pressure is distinctly increased. These effects I have found to be durable. In larger doses it generally depresses the heart's action. On the whole, it contrasts favourably with digitalis and convallaria and is worthy of more extended observation." That the yew is poisonous to animals is well known, but experiment has proved that the leaves when mixed with two or three times their quantity of oats can be taken by horses with impunity. The volume is well printed and well illustrated, and contains a bibliography.

The A B C of the X Rays. By WILLIAM H. MEADOWCROFT. London: Simpkin, Marshall, Hamilton, Kent, and Co.—This book is written essentially for the tyro, and contains simple directions which are calculated to ensure success in obtaining simple x ray results. We do not agree with the author—at any rate, we have not found it so in our experience—that tungstate of calcium exhibits as much fluorescence as the platino-cyanides. Necessarily there are no directions given bearing on the application of the x rays to the exploration of the cavities of the body.

JOURNALS AND REVIEWS.

The first volume of *The Phonographic Medical Library*, projected by the Society of Medical Phonographers, consists of a shorthand edition of four lectures on the Diagnosis of the Nature of Organic Brain Disease, by Sir William R. Gowers. The fourth lecture is a reprint from Sir W. R. Gowers' standard work on the Diagnosis of Brain Disease; the first and second comprise the opening lecture in the same work, amplified and brought up to date; whilst the fourth, on Acute Meningitis, is new. The style of shorthand adopted is the "easy reporting," and the lithography is clear and well done. Medical shorthand writers ought to consider themselves fortunate to be able to possess for the small sum of 1*s.* 6*d.* an authoritative work, which not only affords excellent practice in reading shorthand, but will be helpful in their daily work, characterised as it is by the clearness of diction and lucidity of thought of Sir W. R. Gowers. The publishers are Sir Isaac Pitman and Sons.

Appleton's Popular Science Monthly (New York, Appleton and Co.).—The number for August contains several papers of medical interest embracing subjects which we do not consider at all desirable for public reading or for treatment in a popular journal. Thus, Dr. T. D. Crothers raises some interesting points on New Questions in Medical Jurisprudence. It is a sound and temperate view of the attitude that should be taken in regard to criminals who have committed a crime under the influence of drink. Of course, alcohol predisposes to criminality by lowering and paralysing those brain centres which preside over consciousness of right and wrong. "The claim," he says, "that alcohol is used for the purpose of committing crime should be a question open for evidence, and one to be considered doubtful until proved by facts that can have no other meaning." "Crime committed when under the influence of spirits will be found, as a rule, to follow uniform lines and be very much alike in methods of execution." Dr. Pearce Bailey contributes a paper, illustrated with cases (!!), on the Thyroid Gland in Medicine, which gives a plain and intelligible statement of the new organo-therapy. Lastly appears a very interesting paper on Stones in the Head which we dealt with in our issue of Sept. 18th. We must repeat that it is not compatible with professional dignity that papers of so strongly and strictly a medical character should be published in a "popular monthly." It is a matter to be deplored that even in America this is countenanced.

Analytical Records
FROM
THE LANCET LABORATORY.

UNSWEETENED SWISS CONDENSED MILK.

(THE BERNESE ALPS MILK CO. AGENCY, EDWIN FISCHEL AND CO., 11, ROOD-LANE, E.C.)

THE convenience of sterilised milk in a concentrated form is obvious. The preparation before us exhibited an excellent composition and very little deterioration in regard to flavour. Analysis gave the following results: total solids, 37·75 per cent.; fat, 10 per cent.; mineral matter, 1·92 per cent.; and water, 62·25 per cent. On diluting the concentrated milk by adding to every one part by weight two parts of water, milk of the following excellent composition was obtained: total solids, 12·58 per cent.; fat, 3·33 per cent.; and mineral matter, 0·65 per cent. The concentrated milk contained no antiseptics, and was perfectly sweet and sound to the taste. It is a food product of considerable merit

PURE CONFECTIONERY.

(TUCKER AND SONS, 73 AND 75, HIGH-STREET, TOTNES, DEVON.)

Materials are much too cheap nowadays to make it profitable to employ objectionable adulterants in the preparation of sweatmeats. At one time, of course, as THE LANCET Analytical Commission in 1854[1] showed, confectionery was fraudulently as well as injuriously adulterated. The specimens before us, however, are not even made from common materials, but in some cases with cream and honey. The taste certainly indicates the selection of the best materials, while analytical examination proved the absence of objectionable ingredients. It is satisfactory to find that a high standard of purity and perfection is aimed at by the selection of choice ingredients. The samples submitted to us included butterscotch, cream and honey tablets, Devon cream toffee, and honey and mint toffee, the latter containing a definite proportion of, it is said, Mitcham mint. Not the least distinct advantage of toffee and its preparations is the practical impossibility of employing aniline dyes for colouring purposes.

CACAO DE LUXE.

(A. SHORT AND SON, 1, STANLEY-STREET, GLASGOW.)

The following results were obtained on examination of this cocoa: fat, 31·20 per cent.; mineral matter, 6·20 per cent., the alkalinity of which was equal to 2·43 per cent. reckoned as potash. The cocoa is distinctly alkaline in reaction, a feature which distinguishes it from Dutch cocoas. The Dutch method does not consist of the addition of an alkali to the cocoa, but of a small proportion of a neutral salt which, on ignition, is converted into free alkali. The cocoa employed is evidently of a superior kind and the bulk of

[1] The Analytical Sanitary Commission on Poisonous Coloured Confectionery, THE LANCET, March 18th, 1854, p. 316

the indigestible fat of the original bean is reduced. With regard to miscibility with water, however, there is margin for improvement.

NESTOR FLUID.

(THE NESTOR SANITARY FLUID CO., 16, CREECHURCH-LANE, E.C.)

Tar acids, mainly cresol and not phenol, and tar oils combined with alkali are the basis of this preparation. With water it yields a milky fluid, and in this finely divided condition the powerful antiseptic oils are most favourably presented. The preparation is strongly alkaline, mixes in all proportions with water, and owing to the particular method of combination it gives a mixture of uniform composition and antiseptic strength. It is practically free from carbolic acid, and on this account is regarded as non-corrosive and non-poisonous. This, however, as experience has shown, is not absolutely correct. It would be better to describe it as much less poisonous than preparations of carbolic acid. "Nestor Fluid" is a powerful antiseptic and disinfectant preparation, more than equalling carbolic acid in this respect, and in many ways preferable for ordinary disinfecting purposes.

KOLLOX WINE.

(THE KOLLOX WINE CO., 69 AND 70, MARK-LANE, E.C.)

On analysis this wine yielded the following results: alcohol, by weight 17·25 per cent., by volume 21·19 per cent., equal to proof spirit 37·13 per cent.; extractives, 7·27 per cent.; mineral matters, 0·19 per cent. It is stated that the wine is prepared from selected port to which a specially prepared fluid beef has been added, and a definite proportion of the principles of the kola nut. We were able to confirm this statement in part since the alkaloid occurring in the kola nut, caffeine, was successfully isolated and identified, but if fluid beef has been added the proportion contained in the finished wine must be very small and of little value. We found only ·0246 gramme of nitrogen in 100 c.c. of the wine. By adopting the factor 6·25 as multiplicator this at most represents only ·16 per cent. of meat derivatives. This fact detracts not a little from its claim as "a food tonic." The wine is excellent to the taste and evidently prepared from a good and sound port.

THROAT PASTILLES (MENTHOL CO.).

(GLAISYER AND KEMP, 11 AND 12, NORTH-STREET, BRIGHTON).

These pastilles consist of a kind of jujube, each containing menthol, $\frac{1}{6}$ grain; cocaine, $\frac{1}{6}$ grain; and red gum. They dissolve slowly in the mouth and are not disagreeable to the palate, a slight but quite distinct anæsthetic effect being experienced in the throat soon after the pastille is dissolved. We had no difficulty in isolating and recognising the constituents indicated. These pastilles will afford a useful form of application in certain affections of the throat.

GREEK BRANDY.

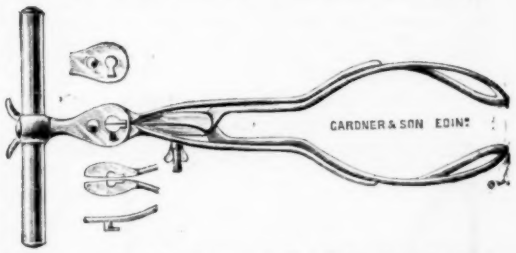
(ACHAIA, DEUTSCHE ACTIENGESELLSCHAFT FÜR WEIN PRODUCTION, PATRAS, GREECE.)

The attention of the profession may be well directed to the fact that since the failure in the Cognac district some years ago excellent grape spirit is being sent to this country from other fields, notably Greece and Spain and the colonies. Though these spirits are not produced in the famous Cognac district, they should claim a decided preference over spirit that is derived from maize and other cereals. The sample of Greek brandy submitted to us possessed the distinctive fragrance of wine brandy, and was smooth and mellow to the taste. With still longer keeping it would doubtless further improve in these particulars. Our analysis furnished the following results: alcohol, by weight 40·80 per cent., by volume 48·21 per cent, equal to proof spirit 84·49 per cent.; extractives, 0·41 per cent.; mineral matter, 0·02 per cent.; acidity, reckoned as acetic acid, 0·08 It is obviously a genuine grape-derived spirit, and it offers, therefore, distinct advantages, especially for medicinal use. Though somewhat dark in colour it does not contain an excessive amount of extractive matters, while its alcoholic strength is satisfactory.

New Inventions.

AXIS-TRACTION FORCEPS.

IN the following illustration is shown a simple device for fixing the traction handle to the rods in the Simpson Axis-traction forceps and at the same time locking the traction rods. The figures (which explain themselves) show, in place of the usual stud on each rod, half a stud on each rod, set upon the adjacent edges in such a way that when approximated they form one stud, which with the hole and slot in the traction plate forms a joint on the well-known Péan principle.



The advantages claimed are:—1. Simplicity of mechanism, giving (*a*) cleanliness and (*b*) a saving of time. 2. Rigidity, the traction apparatus forming a triangle with force applied at the apex instead of a polygon with force down two opposite sides. 3. Uniform ease of adjustment for all sizes of head and all grips, good and bad. The pair from which the illustration is taken was made at my suggestion by Messrs. Gardner factorily, whilst I can apply and remove the traction handle in half the time required for other methods. It costs no more than others and Son, of Edinburgh, and I find that it works very satis-

Auckland, New Zealand. F. M. PURCHAS.

THE ESMOND SADDLE.

NOTWITHSTANDING the padded and pneumatic saddles which have been placed upon the market many riders still prefer the ordinary leather peaked saddle, and, perhaps, if properly moulded and adjusted, there is little to be said against it. The Esmond saddle so far as the "seating" accommodation goes is similar to the common form of peaked saddle, but is original in the manner in which the seat is attached to its supporting framework. The construction is such that the seat swings longitudinally, and at the same time there is a slight lateral movement. Both these movements are of importance—the first in preventing shock when the wheels meet with any obstacle, and the second in preventing friction between the saddle and the thighs of the rider. Another advantage is that as the rider practically becomes one with the saddle, the latter moving with him, there is no danger of bruising the perineum by jolting on to the peak of the saddle. Vibration is also greatly reduced, and there is a sense of ease and comfort in riding which does not pertain to the ordinary saddle. The address of the Esmond Cycle Saddle Company is Botolph House, Eastcheap, E.C.

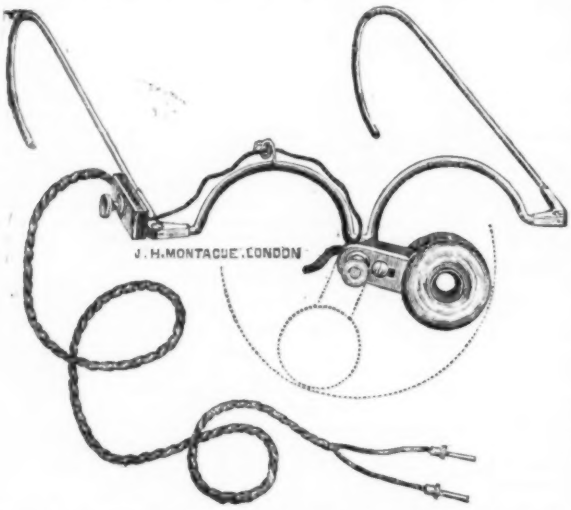
"THE ALFORMANT."

THIS is an apparatus specially adapted for the easy production of formaldehyde gas for the disinfection of the air of apartments. It consists simply of a spirit lamp provided

with a glass chimney, over which is placed a cup-shaped metal receiver, in which a tablet yielding formaldehyde is dropped. The tablet itself is a condensation product of formaldehyde—that is, paraformaldehyde,—which is a solid at ordinary temperatures. On heating this substance formaldehyde gas is disengaged, which, from a single tablet, is sufficient, it is stated, to render 1000 cubic feet of air sterile. The powerful disinfectant, antiseptic, and deodorising properties of formaldehyde have now been fairly established, and a simpler way of applying disinfection to rooms, articles of clothing, &c., can scarcely be suggested. A very important advantage gained in employing formaldehyde for this purpose is that it is without destructive action upon articles of furniture, brass fittings, or domestic fabrics. The gas is very irritating to the mucous membrane, suggesting at one moment sulphurous acid and at another bromine. The introduction of formaldehyde in the form of paraformaldehyde tablets, which yield on heating two and a half times their weight of gas, renders disinfection, and especially aerial disinfection, a much more satisfactory and convenient operation than was possible hitherto. We should imagine, also, that it would be a very convenient and effectual means of ridding dwelling-rooms of mosquitoes, midges, and other pests. The apparatus, with the paraform tablets, is supplied by the Formalin Hygienic Co., Limited, 9 and 10, St. Mary-at-Hill, E.C.

A NEW SURGICAL LAMP.

THE illustration given below represents a new form of electric lamp made at my suggestion some time ago by



Mr. J. H. Montague, of 101, New Bond-street. Having had frequent opportunities of practically testing its usefulness I have found it very convenient in more than one application, though originally designed for ophthalmic work. The lamp, which is one inch in diameter, is circular, flattened from before backwards, and perforated by a central aperture about a quarter of an inch in diameter; the filament completely encircles this aperture. The back of the lamp is silvered and blackened round the central hole behind, and to avoid any unpleasant radiation of heat to the eye the back is further protected with non-conducting asbestos material. A small transformer is required for use with the alternating current, the lamp working best at about twenty-three volts. At present this lamp has been tried in two forms—(1) attached to a handle provided with a switch, and (2) fitted to a laryngoscopic frame (as illustrated) in which it is hinged to the bridge so as to be readily adjustable for either eye; a switch is fixed to the right side of the frame, which can be turned on or off by the slight movement of a small milled head. The advantages of this lamp consist in its lightness as compared with a laryngoscope mirror, of which it takes the place, and more especially in its rendering the usual bracket lamp unnecessary, thus obviating the frequent adjustment of this and of the mirror which is generally required, for the lamp once fixed satisfactorily in the line of vision needs no further alteration whatever the movements of the observer or patient. The uses to which this lamp can be put are many; the most important are for indirect ophthalmoscopic examination (here the laryngoscope frame is very convenient, for it leaves the hands free), for laryngoscopy, and for examination of the ear and nose. It is also applicable to the urethroscope.

Harley-street, W. H. R. BELCHER HICKMAN, M.B. Oxon.

THE "MATTO" CHAIN.

THE essential part of the Matto Chain consists of a stout wire frame, three inches wide by twenty-five inches long, which carries twelve rows of wooden balls, which are free to rotate, each row containing two balls. The diameter of the balls is about one and a quarter inches and the axes are two inches apart. At each end of the frame is provided a suitable handle. The appliance consists, in reality, of a chain of squares, each square carrying at the anterior and posterior ends two revolving balls. Each square has independent movement, so that the chain adapts itself to the shape of the body. Though we cannot regard it as a means of obtaining the complete action of the massage process, yet it distinctly imitates the manual kneading of the muscles of that process, and in this way may establish circulation and induce an invigorating reaction. As each ball rolls over the muscular tissue it is alternately depressed and relaxed, to be depressed and relaxed again as succeeding balls pass over its surface. The effect, however, obviously depends upon the amount of pressure applied when the chain is in motion over the parts it is required to stimulate. To apply any considerable pressure so as to gain distinct effect requires a decided expenditure of energy, and there are many patients who would be benefited by massage, yet who would not have the strength and endurance to satisfactorily manipulate the chain for themselves. It affords, however, for this very reason a very healthful muscular exercise to those who are not too weak to apply it, and its value in this respect is enhanced since at the same time it induces circulation and stimulates the muscles over which the balls travel. Another point to be noticed is that on applying the chain to the body the balls at first impart a feeling of cold, but this discomfort could obviously be avoided by slightly warming the apparatus just previously to use. The Matto Chain is supplied by "Matto, Limited," 32 and 34, Clerkenwell-road, London, E.C.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—The next examination for the certificate in nursing and attending on the insane will be held on Nov. 1st, 1897, as already announced in our advertisement columns. Candidates should obtain from the Registrar (Dr. Spence, Burntwood Asylum, near Lichfield) a schedule, to be filled up, signed, and returned to him at least four weeks before the date of the examination. Oct. 4th will be the last day upon which, according to the rules, candidates can enter for the November examination.

INFECTIOUS DISEASES AT CARDIFF.—During the thirteen weeks ended July 3rd, 101 patients were admitted into the infectious diseases hospitals at Cardiff, compared with 151 in the preceding three months. Of these 71 were suffering from scarlet fever, 22 from diphtheria, and 8 from typhoid fever. The expenditure for these amounted to £641 3*s.* 6*d.*, or, after deducting £17 7*s.* 7*d.* received from the guardians and others for the maintenance of patients, an average cost of £6 3*s.* 5*d.* for each patient admitted.

THE LANCET.

LONDON: SATURDAY, OCTOBER 2, 1897.

THERE seems to be fair hope of redeeming the cause of Direct Representation in some degree from the discredit which has fallen on it in consequence of the extraordinary action of Dr. RENTOUL. As we anticipated last week, the list of candidates—which we may now regard as complete—contains one or two names which will justify the concentration of the votes of the profession for the purpose of securing the best candidate. We must again repeat that in our opinion the discredit to Direct Representation is at present very great. Dr. RENTOUL has disturbed the profession with proposals or almost promises of a medical millennium—the number of Direct Representatives was to be largely increased; midwives were to be abolished, and the cases they attended were to be handed over by force of law to general practitioners, who were to receive from public sources two guineas per case; friendly societies were to be limited in their powers from a medical point of view; and all gratuitous work on the part of members of the General Medical Council and its committees was to cease. And just as the time draws nigh for Dr. RENTOUL to do his work and demonstrate the practicability of his proposals he retires from his post, throwing the blame on the profession for not supporting him and on the members of the General Medical Council, among whom he stood "almost alone" in desiring "to carry into effect those medico-political and medico-ethical questions which I have had at heart for a good number of years." We do not think that in the history of medical politics there is such another instance of want of courage in the person of a reformer who felt he was almost the only advocate of truth and right. We need not labour these points. They are admitted even by those who supported Dr. RENTOUL. We only refer to them to impress on the profession that no mistake should be made in the rapidly approaching election. A candidate must be chosen who knows his own mind, who can take a sober view of the duties of the General Medical Council, and who can give the members of the Council credit for what they do and for a little common sense and some disposition to act for the advancement of the best interests of the profession—which are certainly consistent with the best interests of the public.

There are now five candidates before the electors, Mr. JACKSON having with some magnanimity retired in favour of Sir WALTER FOSTER. We shall neither surprise nor offend other candidates if we assume that for the purposes of this election the choice of the profession will lie between Mr. VICTOR HORSLEY and Sir WALTER FOSTER. On less serious occasions questions may properly be raised in favour of a general practitioner as such, but this is not the time. A strong well-known candidate must be elected, and so long as he is in sympathy with the body of the profession and its wants, and is a man of stability and ability and discrimination, we need not too narrowly inquire what branch of practice he follows. We may consider the claims of Mr. HORSLEY and Sir W. FOSTER in the order in which they entered into the contest. They are both men of ability and eminence, and the election of either of them would tend to restore the somewhat damaged reputation of Direct Representation. The time is not one for bandying compliments, and we shall try in a few sentences to indicate, not only the merits of these gentlemen, but, with all due deference to themselves, their defects.

Mr. VICTOR HORSLEY is one of the most brilliant men in the profession, with the great advantage of youth. He has so distinguished himself in science as to have been elected in early life a Fellow of the Royal Society, and in surgery as to be one of its most original and enlightened leaders. Nevertheless, he has always manifested the utmost sympathy with the general practitioner and he has displayed for years the most keen interest in defending medical men from all unfair conditions and unjust laws. He has, as President of the Medical Defence Union, acquired an almost unrivalled knowledge of the weak spots in the Medical Acts and the deepest sense of what is required for the honour of medical practice. He speaks with great clearness and force. He is, in short, a very strong candidate. Has he no faults? He has the very faults of his virtues. He is impulsive. Sometimes he is prejudiced and occasionally rather too aggressive. He is apt to be borne along with the very impetuosity of his perceptions and convictions. On one or two occasions he has allowed himself to make unwarranted charges against the President of the General Medical Council, which offended not only the President but the Council. But these are faults that responsibility will correct. He remains an excellent candidate, whose election would add immensely to the interest of the Council's discussions and to its reputation.

Sir WALTER FOSTER is, we are all aware, an able consultant and a prominent Member of Parliament. He is a good speaker who knows what he wants to say and how to make his points. He is good-tempered in debate and was always listened to with respect by the Council. His Parliamentary position has some advantage when it does not interfere with his attendance at the Council. He has always shown an interest in needed amendments of the Medical Acts, and was the chairman of a select committee to consider defects in the Registration Acts. The profession, too, has had in him, both in Parliament and as a member of the General Medical Council, an effective and sympathetic exponent of its grievances and complaints. His faults are due to a certain variability of mind. In November, 1889, he proposed a resolution in the Council urging on the Government the importance of passing into law some measure for the education and registration of midwives. In later years he has been the exponent of Dr. RENTOUL'S views and is now strongly supported by him. With a little more firmness of mind he would doubtless have retained his well-earned seat at the last election, but with a doubt either in his own intentions or as to the confidence of the profession he retired. However, when all is said there remain two excellent candidates. It is somewhat hard on the profession that it should have to choose between them.

Either of them would confer a great obligation on the profession by giving place to the other and so enabling it to return a suitable candidate with practical unanimity. Mr. HORSLEY, however, was first in the field, and in view of the facts that at the last election he stood aside in favour of candidates who were actually general practitioners, and that on the present occasion he was quite ignorant that Sir WALTER FOSTER would again offer himself for election, his candidature will claim much sympathy. Moreover, his address and his speech at Manchester show how lucidly he comprehends the work to be done in the Council. If elected he would of course have to cease to be a member of the Medical Defence Union; but it is not too much to say that he would take with him an amount of knowledge of the conditions of medical practice and of the defects in medical legislation and in medical education which would add greatly to the usefulness of the General Medical Council.

THE history of therapeutics is full of remedies which have been tried and vaunted for various diseases, but which further experience has shown to be perfectly useless. Every year are added to this list substances of unknown composition and uncertain action. Within recent years, however, certain bodies have been administered which have given rise to a practically new branch of therapeutics—namely, the animal extracts—and this in turn has caused renewed attention to be applied to the properties of "internal secretions." One of the most remarkable of recent remedies which has already withstood the test of time and has not, like so many others, fallen into disuse, is thyroid extract. Experiments have not yet clearly demonstrated the functions of the thyroid gland; but one point is clear, as Dr. ROSE BRADFORD shows in his article on the "General Pathology of Secretion" in Dr. CLIFFORD ALLBUTT'S System of Medicine—namely, that whatever other functions the thyroid gland may possess it supplies at any rate a substance necessary for normal tissue metabolism. At first introduced for the treatment of myxœdema by Dr. GEORGE R. MURRAY and others, feeding with thyroid gland or its extract has been employed in numerous conditions with varying success, but by far the most satisfactory results have been obtained in myxœdema and cretinism.

Four original articles in our present issue bear testimony to this. Especially interesting is one bearing the title "Sporadic Cretinism," by Dr. A. GORDON PATERSON. He describes the case of a child affected with cretinism who was brought to him at the age of eleven months. The effects of the thyroid treatment were immediate and remarkable, and steady improvement had been maintained for a period of five years. The mother gave birth to a second child which was an exaggerated counterpart of the first, and which only lived for twenty minutes; and then follows the most interesting part of the paper. The fact of the mother having given birth to two cretins in successive pregnancies offered a strong presumption that she would, unless treated, give birth to a third, consequently when the woman again became pregnant she was treated from the beginning of the third month by thyroid extract in the form of tabloids. Labour came on naturally and at full term and was easy. The child was a fine healthy female, indistinguishable from any other infant in appearance. Another article by Dr. T. TELFORD-SMITH draws attention to the fact that one of the most marked among the many other signs of development produced in cretins during the administration of thyroid preparations is the rapid increase in stature, and he finds that this rapid growth of the skeleton leads to a softened condition of the bones, resulting in a yielding and tendency to bend in the case of those which have to bear the weight. Surgeon-Captain DRAKE-BROCKMAN records a case of advanced cretinism treated by thyroid extract which showed marked improvement under the influence of the extract. The boy was a native of India, and the case was an advanced one, not only in years, but in severity of symptoms. The fourth case comes from another part of the world—New Zealand—and is reported by Mr. CHARLES MORTON ANDERSON. The patient in this instance was a girl, aged eleven years, who had first shown symptoms of cretinism at the age of three years, so that the condition was far advanced; nevertheless, immense improvement was produced by the use of thyroid extract, both physically and mentally.

Regarding these cases as types of the numerous ones constantly being recorded, it is difficult to find a more marked example of uniformly successful medication. Perhaps the two forms of treatment with most nearly similar histories which present themselves in modern times are those by the salicylates in acute rheumatism and by iodide of potassium in syphilis. Although, as stated above, the exact action of thyroid feeding is not as yet fully understood, yet it has proved by the test of number of cases and by the lapse of time since it was first introduced to be one of our most reliable remedies, and this in a class of case which up to a few years ago had been looked upon as almost hopeless. The condition of the cretins especially was most deplorable, not only as regards their physical but also their mental powers. Now, however, the prognosis of such cases under this treatment is most hopeful, and the use of the thyroid gland or its extract may be regarded as one of the most successful therapeutic discoveries of the century.

THE total number of persons of unsound mind in England and Wales under the supervision of the Lunacy Commissioners on Jan. 1st, 1897, was 99,365. This represents an increase of 2919 for the year 1896. There has been an increase of 2857 pauper patients, 53 private patients, and 9 criminal lunatics. The returns for Scotland and Ireland also show that the asylum population is increasing. At first sight it would appear that insanity in its more active phases is making rapid strides among the populace, but the official view does not confirm this, and the authorities of the various countries are strong in the conviction that the increase is more apparent than real, and is mainly due to accumulation. This assertion is decidedly reassuring, but perhaps it is capable of further proof. An argument in favour of the Commissioners' views is furnished this year by the fact that the death-rate of the English asylums shows a considerable diminution. The effect of a recorded decrease of 0·96 in the death percentage of 1896, as compared with that of 1895, was to leave alive at the end of 1896 722 patients who would have been removed by death if the

rate of mortality had been the same as that of the previous year. On the other hand, a slight advance of 0·35 in the recovery rate brought about the discharge of 66 more patients than would have been left if the rate of 1895 had prevailed, and this number must be deducted from the 722, leaving 656 cases as the result of the diminished discharge rate. This is an explanation as far as it goes, but it leaves a very large margin to be accounted for. What is the composition of this residue? Is it due to recent, recurrent, or chronic insanity? This is the point to determine, and in this respect the statistical information afforded by the Commissioners is very defective. No statistics are available for estimating the number of persons *with first attacks* in which the onset of insanity took place *within three months of admission*. A table conveying this information is inserted in every asylum report, and it is therefore safe to assume that the sum total for the whole country could easily be ascertained. For purposes of comparison such a table would prove invaluable, and it is the only method of obtaining anything like reliable information regarding the incidence of freshly occurring insanity; further, it would tend in great measure to solve the difficult question whether there is, or is not, an increased liability to insanity amongst the population. In the Red Book of the Asylums Committee of the London County Council the proportion of such cases appears to be 37 per cent. of the admissions. It would be interesting to know the ratio for the whole country.

While the number of pauper lunatics shows a marked increase from year to year, the case is otherwise with private patients. In the latter class there has been a continuous decrease, from 2·82 per 10,000 of the whole population in 1891, to 2·68 in the present year. During the same period the ratio of pauper lunatics has increased from 26·78 to 29·07 per 10,000 of population. As to the general proportion of insanity, it appears that in 1859 the proportion of officially known lunatics to the population was 1 to 536. Since then things have materially altered for the worse, for the ratio at the present time is 1 to 313. The statistical tables in this year's report have been supplemented by the inclusion of a table giving the number of patients admitted in each month of the year 1895 suffering from the principal forms of mental disorder, and also showing the daily average of those admissions for each month. It is somewhat singular that the admissions under all heads were most numerous in the month of May, next in April, and thirdly in June. The daily averages of admissions for each of the five months March to July exceeded the daily average for the whole year; again, the daily average of admissions of cases of mania was highest in April—viz., 32·3 per cent.; and that of cases of melancholia highest in June—19·3 per cent. The lowest daily average in both cases was in February—viz., cases of mania, 24·3 per cent., and of melancholia, 13·3 per cent. This is a valuable and instructive table which, it is to be hoped, will be continued in future reports; in the form of a chart it would prove still more useful. The conclusion drawn is that insanity requiring early and active treatment away from home, develops more frequently in the spring and summer months than in autumn or winter.

The actual number of recoveries during the year was 7178, an increase of 105 on the previous year. The proportion of recoveries to the total number of admissions comes to 38·53 per cent., as compared with 38·18 per cent. in 1895 The total number of deaths was 6806, being 9·05 per cent. of the daily average number resident. In respect to the assigned causes of insanity, the Commissioners are of opinion that very great reliance cannot be placed on the returns, but apparently hereditary influence continues to be the most fruitful cause, previous attacks coming next, and intemperance in drink taking the third place. The proportion of old age as a cause continues to advance in the pauper class. The cases of relapse also show a tendency to increase in the same class. It is stated that this may be accounted for by the anxiety to discharge patients "not perfectly cured" owing to the crowded state of so many asylums. The Commissioners, having recognised the fact that there is a tendency to premature discharge, ought to consider the feasibility of endeavouring to check it as far as possible, for there can be no doubt that, in addition to frequency of relapse, it is responsible for other evils — viz., an increased production of hereditary insanity, and a larger proportion of insane criminals.

With the opening of the new asylum in the Isle of Wight the total number of county and borough asylums now amounts to 70. The admissions into these institutions during the year 1896 numbered 18,448, and it is noteworthy that the number of new cases admitted was no less than 2513 in excess of the average of the ten preceding years. The percentage of post-mortem examinations made was 79·9, the same as last year. The suicides amounted to 22, but in 6 of the cases the act which resulted in death was committed prior to admission, and in 2 instances the suicide occurred whilst the patients were absent on trial or on leave. 5 deaths were due to misadventure or accident; 2 patients were suffocated during epileptic fits. Many of the county and borough asylums are overcrowded, and in some instances the overcrowding is aggravated by insanitary conditions. The Commissioners express their regret that they are unable to report any material decrease in the number of those asylums where the sanitary conditions are defective, and in which preventable disease occurred. 16 deaths appear to have been due to typhoid fever in 9 asylums, 93 to colitis and enteritis in 31 asylums, 49 to diarrhœa of specific character in 20 asylums, and 6 to erysipelas in 5 asylums.

Attention is drawn to the state of the law respecting idiots, which requires amendment. More adequate provision is needed for the proper care and treatment of lunatics in workhouses. The number of registered hospitals remains the same, and their general condition continues to be quite satisfactory. The same holds good with respect to licensed houses, with a few exceptions. The entries made by the Commissioners on their visits to the county and borough asylums are appended. It is evident that those concerned in the management of these institutions display much vigilance in the care and treatment of the insane. The whole report affords continued assurance that there is no falling off in the efficiency and energy with which the duties of the Lunacy Board are discharged.

Annotations.

"Ne quid nimis."

THE SCIENTIFIC CONSTABLE: A NEW DEPARTURE.

WE have already with us the prescribing chemist, the herbalist, the bone-setter, the "electro-cure" humbug, and a host of advertising quacks, but now it seems that we are to go a step further and to be introduced to the policeman who, having attended a course of ambulance lectures, gives evidence instead of the surgeon, thereby saving the latter's fee and at the same time glorifying himself. In reading the account of an inquest held at Halton, near Lancaster, we notice that after a police constable had given evidence as to the finding of the body a serjeant was put into the box, not to corroborate his colleague, but to describe the injuries and to give an opinion as to the manner in which one of them had been caused. He said: "When we got it out I found that the neck was dislocated, and a large wound on the left side of the neck, through the mouth, and out at the right cheek. The carotid artery was severed, the left arm was fractured and four of the left ribs, whilst the bottom lip was torn away ..... The carotid artery appeared to have been pierced by a piece of timber, the wound being contused." What are we to think of this? In the first place, how is this man competent to say that the neck was dislocated (a very rare accident, we may remark)? Again, not being an anatomist, how can he decide that the carotid artery was wounded, and, above all, how in the name of all that is wonderful can he swear that four ribs were broken? It is a notorious fact that fracture of a rib may be most difficult of diagnosis; but here, where experts often hesitate, we have a policeman glibly dogmatising. But even worse follows. Not being content with speaking to facts, he proceeds out of the fulness of his experience to give the opinion that the wound of the artery was caused by a piece of timber because the wound was contused. It really would be laughable if it were not such a serious matter. Would a blacksmith or a road-mender be allowed to give evidence upon an abstruse problem in engineering? We think not. And yet this is a fairly parallel case.

HOSPITALS AND PUBLIC RESPECT.

AT a time when those who have the interest of hospitals at heart are trying to check the abuse to which they more than all other charitable institutions are subjected, it is to be regretted that anything should occur which might tend to lower the respect in which hospitals should be held by the general public. Last week at Wood-green a carnival was held in aid of a local hospital. This took the form of a long line of tradesmen's carts, decorated, and accompanied by a motor car, a fire-engine, and a procession of cyclists in fancy dress, while tableaux were also introduced into the programme. Most of the vehicles were tastefully adorned, and a similar complimentary remark can be made with justice concerning the masquerade attire of some of the cyclists, but there praise must cease. We have on more than one occasion deprecated street processions in aid of hospital charities altogether, but what we have now to say is new. We have never before observed an element of indecorum on the part of those joining in these processions, but this element was present at Wood-green, and did not tend to heighten the respect of the sightseers for the institution with which it was associated in their minds. For any of the carnivalists to appear "in that long white formless robe that makes all woman one" displayed perhaps a want of taste, but when some of the masqueraders proceeded to act in a suggestive manner—and that certain of them did so admits of no doubt whatever—the want of taste touched the confines of the indecent. The grotesque tableau which bore some resemblance to Mr. Luke Fildes's picture of "The Doctor" did not reflect any credit on its designers, nor was it calculated to make the public particularly ready to support a medical charity, or, indeed, to do anything but smile at a solemn death-bed, while a person in the garb of a hospital nurse was as great a libel as Miss Glory Quayle. It is quite natural that secretaries of hospitals should take advantage of every means in their power to fill the coffers of the institutions to which they are attached, and in certain neighbourhoods it may be found that this method of promenading the streets forms a good means to that end, but it is highly advisable that such shows, if they must be held, should be conducted decently and in order.

THE "MASSAGE-KIDNEY."

"WE have allowed the quacks to get the start of us in the application of electricity to therapeutics," said Dr. Anstie on a memorable occasion, and the same, we fear, must, with equal truth, be said of massage. An excellent resource when medically prescribed and scientifically applied, massage is not only hazardous but positively hurtful when, on the "every man his own doctor" principle, the prescription originates with the patient who puts himself in the hands of one or other of the "masseurs" whose knowledge of anatomy, physiology, and organic lesion is on a par with that of the bonesetter or herbalist of disastrous notoriety. For what happens when the unscientific "massage" in question is practised on the "patient" who most commonly invokes its aid? He is as a rule gouty. In this state the kidney, which in such patients every sound practitioner watches with peculiar vigilance, is seldom or never quite equal to its functions. The unqualified "masseur," however, commences operations, and in his ignorance of anatomy and physiological function goes ploughing away at muscles infiltrated with the uric acid poison, creating as much histolytic waste as a brisk six-miles walk, and calling on the kidney for an excretory effort quite beyond its powers. Prolonged from day to day and unmodified by circumstances, till the "course" (often for weeks) is completed, this practice is simply destructive to the already damaged kidney and the patient finds he has got rid of a certain amount of pain or acquired a comparative ease of movement at the expense of chronic renal incompetence and eventual uræmia. That such is a too common history is familiar to nearly all consultants, particularly if their *clientèle* is on the Continent, where massage is practised with more zeal than knowledge. So generally has that history come to be recognised that the "massage-kidney" is taking its place in pathological classification, while its production is a complication for which sound diagnosis and treatment are making due allowance. The moral of it all is that none but the regularly qualified practitioner should prescribe massage, and none but the regularly qualified masseur should practise it. Indeed, more than one "Bade-Arzt," rather than sanction the manipulations of self-styled "masseurs" on his patients, has gone to the headquarters of the art at Stockholm and there taken lessons in it so as, *faute de mieux*, to apply the said manipulations himself. To such a course, however, he only resorts when the duly qualified masseur, armed with the diploma of the Stockholm school, is not to be had. This is becoming an ever rarer contingency and at nearly all the better balneary establishments or "Kurörter" the Swedish

"diplomé," one or more in number and of both sexes, is attached to the institution. To this position the said "diplomé" has entitled himself by a systematic course of study not less than three years in duration—a course which comprises some anatomy and physiology and so much pathology as enables him to coöperate intelligently with the prescribing physician. To their credit be it recorded, the Swedes have created a school of massage on a sound basis and have reaped the reward in seeing their diplomés take rank with the "auxiliary forces" of the great army of medicine. In time, of course, their example will find effective imitation at other schools, with the result, peradventure, that "the pupil will excel the master." Meanwhile, the self-respecting practitioner at the great balneary centres abroad has come to be satisfied with none but such properly certificated "masseurs" and "masseuses." At home, when Parliament has put down "massage shops," the unwritten law of the profession will, we hope, make it soon impossible for any but scientifically-trained and medically-prescribed massage to find favour with the public.

A CHILD KILLED BY A MOTOR CAR.

THE motor car has taken its first toll of human life in London, a child, aged nine years, having lost his life through the agency of one in Hackney on Sept. 22nd. From the evidence given at the inquest it was perfectly apparent that the accident was in no way due to either recklessness on the part of the driver or to any defect in the machinery of the car. Deceased was one of a lot of schoolboys who ran after the car and amused themselves by getting on and off at the back. He was sitting next the driving chain and edged nearer to it to make room for a comrade. While so doing he was caught in the chain, twisted round and entangled in the wheel, sustaining fatal injuries. The foreman of the jury suggested that a network might be put over the chain, but the driver of the car was of opinion that "that would not last a week with the class of boys in the neighbourhood." We are inclined to agree with him; the London boy is perfectly reckless and daily escapes death by a miracle, witness the way in which he will board an omnibus when the conductor is engaged in collecting fares, and will jump off under the noses of the horses attached to the next vehicle without ever looking or thinking of the possibility of being run over. All we can hope is that this accident, lamentable as it was, will not prejudice the public against what promises to be a very useful method of locomotion, for it is evident that neither the driver nor the car was in fault.

HUNTINGTON'S CHOREA.

THIS curious disease, characterised by its appearance in adult life and by its tendency to affect several members of a family, to be inherited, and to end in insanity, is sufficiently uncommon to lend considerable importance to a paper in a recent number of *Brain* in which Dr. Michell Clarke describes some cases one of which ended fatally. He also describes the post-mortem condition of the nervous system found in this one. The first case was that of a painter, aged fifty-four years, a scheme of whose family history is given. From this it is seen that the patient's grandfather was twice married and had two children by his first wife and four by his second. Of these six children no less than four died insane, and one is known to have had chorea as well. Of the other two, one is living, aged eighty years, and suffers from chorea; the other died sane at the age of sixty years, but was prematurely aged-looking. The patient whose case is related is one of a family of three, the father being the fourth child who himself died insane and suffered from chorea. Of the other two one died in Fishponds Asylum. Of two cousins one died in an asylum, and the other is at present an inmate of Bath Asylum suffering from chorea and insanity. Of the next generation none seem to suffer as yet. There was nothing unusual in the patient's mode of life. The first symptom noticed was involuntary stamping of the right foot, followed by general twitchings. On his admission to hospital constant choreic movements were present in all the muscles of the trunk and limbs, the knee-jerks were active, and sensation, general and special, was normal. His memory was defective and inaccurate, but he had no delusions or hallucinations. The younger brother of this patient is Dr. Michell Clarke's second case. He was in Bristol Lunatic Asylum and had suffered from choreic movements for several years. He was demented and had delusions, but his memory and intelligence were fair. There was nothing noteworthy in the state of his bodily organs. The movements ceased entirely during sleep, although they affected the muscles of the face, trunk, and limbs. He died from pneumonia after a few days' illness. There was no very obvious naked-eye change in the nervous system, but careful microscopic examination of prepared sections showed widespread but partial degeneration of the cells of the cerebral cortex, especially those of the second and third layers, most marked in the frontal and motor convolutions, and an increase in the amount of interstitial tissue and of neuroglia cells. Dr. Michell Clarke also briefly relates another case of the same disease under his care in 1893. The family tendency to insanity in the case of this patient was not so marked, but his father had suffered from choreiform movements, and two sisters had been similarly affected. The illness began with loss of power in the legs, and when he came under observation all the muscles were agitated by constant spasms which ceased during sleep. Dr. Michell Clarke is of opinion that the cerebral cortex, especially the motor convolutions, is the seat of the disease, and that the change is a degeneration of cells with a concomitant increase in neuroglia. Similar changes have been observed in cases of ordinary chorea, and the identical nature of the spasms in the two conditions would seem to indicate a similar affection of the same parts of the nervous system in both cases. But from the greater severity and longer duration of the symptoms in Huntington's chorea the changes would naturally be expected to be more obvious in that disease. Dr. Michell Clarke's paper is illustrated by exceedingly good photo-micrographs of sections.

A ROYAL PHLEBOTOMIST.

A SHORT time before his death the Duc d'Aumale, who was one of the immortal forty, read a paper at a meeting of the French Academy entitled "Le Roi Louis Philippe et le Droit de Grâce." To a certain extent a dissertation on Royalism, this essay was likewise largely biographical, and by way of motto it bore the following words taken from Victor Hugo's "Les Misérables": "The first monarch who spilt blood to preserve life." The incident to which the poet makes allusion is thus described by the Duc d'Aumale: "On the 27th of October, 1833, my father, accompanied by the whole of his family, went to meet his son-in-law, the King of the Belgians, who was on his way to Paris to pay him a visit. I was one of the children who were packed together in the front of the *char-à-bancs*. The Brussels travellers were late, and accordingly, greatly to our satisfaction, we took the mail coach at Bourget. A luggage courier named Vernet, who was accompanying us, happened to get jammed by a cart, and was thrown from his horse under the wheels of the Royal carriage. They carried him to the edge of the road, where he was quickly surrounded by a crowd of people. The King at once made his way to the spot, and having examined the injured man and asked a few questions he exclaimed, 'Why, he must be

bled; is there anybody here who knows how to draw blood?' To this inquiry there was no answer, so my father took from his pocket a lancet which had not quitted his possession ever since the time when he used to act as a dresser at the Hôtel-Dieu, and of which he had made use during his American voyages, directed the attendants to tear up some handkerchiefs, set out his bandages, arranged his appliances, performed the bleeding, and applied the ligatures. The operation was a success. Vernet, who was no longer a young man, for he used to accompany the Emperor, was still running the mail ten years later."

MORALS AND THE STAGE.

SIR HENRY IRVING is much exercised by the remark of a speaker at the recent Sanitary Congress at Leeds that many crimes of violence were promoted by posters representing crimes as portrayed on the stage. At a complimentary banquet at Cardiff Sir Henry Irving asked how many wives had owed a violent death to the pernicious example of Shakespeare in *Othello*. We should doubt ourselves whether crime was ever prompted by either a poster or a stage representation. Indeed, to judge from the behaviour of the audience at Drury Lane Theatre, who greet Mr. Henry Neville with howls of execration, crime as represented on the stage exercises a most wholesome influence. The reading of "penny bloods" is no doubt deleterious, but at present we think the stage may be held innocent.

THE SANITARY STATE OF POONA.

Apropos of the late trenchant report of Surgeon-Major J. P. Barry on the breakdown of local self-government in India, as illustrated by the disgraceful state of Poona, owing to the neglect of the municipal authorities, the *Times* of Sept. 24th had some very wise and pertinent questions to ask. Poona is a place in which highly intellectual and educated Brahmins exercise a decisive influence, but where they have failed to discharge the most elementary duties that fell to their charge. As we all know, the educated classes in India are always asserting their claims to take part in the Government of that country, but their education has for the most part been such as to qualify them for theoretical and paper work rather than for really useful practical work. The native intellect and character are peculiar. The natives of Bengal have prodigious memories and good receptive faculties. The possession of these fits them for passing examinations upon subjects which they do not really understand and of which they have no practical "grip." They are children with subtle, casuistical minds; they will commit to memory examination text-books from cover to cover and write about subjects to any extent, but as to really knowing them objectively and usefully, or applying their knowledge with a practical end in view, that is quite a different matter; in fact, the education of the average Bengali youth is often only "shoddy" and veneer. Of course, there are very many exceptions. We are only speaking of the many—the average—who are puffed up with book-knowledge which they have not really assimilated, and this unfits them for any really useful work requiring earnest thought and genuine labour. It is doubtful whether the progress of sanitation in India has been really advanced by introducing a system of native self-government or local municipal authority. Money measures men in India as elsewhere; the native population is very poor and very averse to change of any kind or to the expenditure of rupees; and under such circumstances material progress is extremely difficult. Sanitation in India must advance slowly, for it presupposes education, and we cannot legislate much ahead of the feelings of the people without incurring grave unpopularity and risk of another kind. Lord Ripon's policy regarding local self-government in India has not by any means been so successful as philanthropic people anticipated. As an intelligent native once remarked: "Sahib, we pay you well to govern us and to do all these things for us, and now you want us to do it all for ourselves and govern ourselves." Be the cause what it may, the local municipal Governments of Poona, Calcutta, and Bombay have not proved satisfactory. Local bodies have no initiative; they will meet and talk and devise schemes on paper, and there it ends; they do not see that their schemes are practically applied, and vote the necessary funds for carrying them out. Epidemic diseases come in time, give rise to panic, an exodus of the native population, a Government inquiry, and expensive reforms. So it comes about that, as in the case of the city of Bombay, a large scheme of sanitary reformation has to be devised, and the work of carrying it out has to be entrusted by the Government to a nominated body which is independent of the corporation. In time it may be otherwise; that will be when intelligent and rich natives will put their hands to the work directly in front of them, for the good of everybody and to the great relief of an overworked Government.

"YOU MUSTN'T TOUCH."

A VERY old and very persistent superstition has again dictated the action, or rather the inaction, displayed by the persons who were the first to dicover the body of a recent suicide. A poor fellow, named Henry Scott, recently committed suicide in a Suffolk village by hanging himself to a tree. It was stated at the inquest that an hour before he was cut down a man saw him suspended from a branch, but that instead of ascertaining whether life was extinct he went for the police, being under the impression that a body must not be touched save in the presence of the police. Some children also saw the unfortunate man and ran to tell their elders. But their elders did nothing, being under the same curious impression. It cannot be too widely known that the prejudice against touching a body save in the presence of the police is founded upon nonsense, and nonsense to which before now lives may have been sacrificed. The fault probably lies at the door of the police who, in cases where a body has been moved and a verdict has been subsequently returned against some persons unknown, have been known to hint that if things had not been disturbed they could have obtained a clue—the sort of clue, we suppose, the absence of which accounts for the unsuccessful inquiries into the death of Miss Camp. The duty of a person who finds a body is first to ascertain that it is a body and not a fellow creature. If life remains a medical man should be sent for and afterwards the police. If it is necessary to remove the body to ascertain that it is a body—this would always be the case when dealing with death by hanging—it will of course be well to take accurate notes of the position in which it was found for the information of justice.

CROSSED ADDUCTOR JERK.

IN a recent number of the *Journal of Physiology* Dr. Purves Stewart has a short paper dealing with this subject. The peculiarity of a crossed jerk is one which is not unfrequently observed, and essentially consists in movement of the opposite leg when an attempt is made in the ordinary way to elicit the knee-jerk on one side. In Dr. Stewart's case if the right patellar tendon was tapped two jerks occurred, one of the right quadriceps extensor, the other of the left adductor muscles, and conversely of the right adductor muscles and the left quadriceps extensor when the left patellar tendon was tapped. The jerks of the two legs appeared to occur simultaneously, but an apparatus was devised to show (1) the moment at which the patellar tendon was tapped;

(2) the moment at which the knee-jerk occurred; and (3) the moment at which the crossed adductor jerk took place. The instrument is described in the paper, and three photographs are also reproduced of successful tracings taken during the experiments. These show clearly that the crossed adductor jerk occurs at an interval distinctly later than the knee-jerk, the average delay between the occurrence of the knee-jerk and the crossed adductor jerk in the three experiments being 0·057 of a second. This interval is considerably shorter than Dr. Glynn found in a case of crossed vastus internus jerk. Dr. Stewart mentions that different opinions have been held as to the nature of the crossed jerk, some observers considering that it is a true reflex, others that it is a direct muscular jerk produced by a sudden stretching of the adductor muscles resulting from the "jar" to the pelvis caused by the tap on the patellar tendon; others also hold that the adductor jerk is due to a sudden mechanical shock to the spinal cord. Dr. Stewart is induced, by a consideration of the results of his experiments, to conclude that the crossed adductor jerk is not the result of direct stretching of the adductor muscles by a shock communicated from the pelvis or due to a shock transmitted mechanically to the spinal cord, but is a true reflex occurring at a period distinctly later than the ordinary knee-jerk. The considerations which have chiefly led him to reject the two former views are that a tap on any of the bones near the knee, although equally likely to "jar" the pelvis, did not produce the jerk, and that only one adductor jerk was produced, and not one on the same side as well. He finds that the average time necessary for the appearance of the crossed adductor jerk is about 0·126 of a second from the time at which the opposite patellar tendon is tapped.

FOOD AT PUBLIC SCHOOLS.

AN animated correspondence under the above heading is being carried on in the *Morning Post*, and, as is usual in a newspaper discussion, the views of correspondents put forward two entirely opposite opinions. On the one side we have the delightful letter of "Quiz," who has two boys at Eton, and "upon my mentioning to one that people had been writing saying that boys were not sufficiently fed he remarked, 'Oh, golly, what a lie!'" Here we have one side of the shield. The other is exemplified by the horrifying letter of "A Mother of Four Sons," who sent "one of my boys a large package of mulberry leaves for his silkworms, and he told me afterwards that he had been glad to eat most of the leaves himself, for he got no vegetables, and the craving for green food was intense." Now we do not doubt in the least that the boy said this, but we very much doubt the craving for green food, for the average boy resembles the gentleman quoted by, we fancy, Surtees, in one of the Jorrocks' books, who upon being offered watercresses replied: "Do you take me for a rabbit?" As to the *menu* at public schools nowadays we cannot speak with certainty, but some twenty-five years ago we can say from personal experience of one school that though the food as a whole was good, and there was plenty of it, it was served out at the wrong time. Before going into early school in the winter coffee and bread were provided; breakfast, at 8.30, unless supplemented by the boys' own resources, consisted of tea or coffee and two under-baked rolls. Nothing more was provided till 2 P.M., when dinner was served, both plentiful and good. Tea, at 6 P.M., was a *résumé* of breakfast, and at nine there was supper if anyone liked to have it, consisting of meat, salad, or other "green food," bread, butter, cheese, and beer. As a whole, then, the quantity of food supplied in twelve hours was ample, but it would have been much better to have supplied the meat with breakfast and not at supper. For a boy to fill his stomach with meat and beer just before going to bed is most harmful, and it is almost equally harmful to expect a growing boy to work his mind and body in various forms of mental and physical exercise from 7 or 7.30 A.M. until 2 P.M. upon nothing but coffee and bread-and-butter. We should imagine that, as "Quiz" also points out, sanitary matters and ventilation are in more need of reform than food.

RESPONSIBILITY FOR INSANITARY CONDITION OF HOUSES.

A RECENT decision given by the Recorder of Belfast (as reported by our correspondent) shows the peculiarities of the law. According to this authority, and he gave judgment accordingly, if a citizen takes an unfurnished house he does so with his eyes open; if it is not in a sanitary condition he must examine it, and if it is defective from a sanitary point of view he must, at his own expense, make it right. Neither the landlord nor the agent was bound to do so. On the other hand, the Belfast Recorder laid down the law that if the house was furnished that fact implied that it was fit for habitation, and those letting the premises under such conditions were bound to make them sanitary in all respects. Notwithstanding this decision, we think that no person should take a house, whether furnished or not, unless those letting the premises are willing, if required, to allow an examination of the house as to its sanitary condition to be made by an independent authority. If the house is found to be defective it should be made right by the landlord, who should pay the sanitary engineer for his examination. On the other hand, if the premises are in a correct sanitary state the tenant should pay for the examination.

THROMBOSIS OF THE JUGULAR VEINS.

THROMBOSIS of the large veins of the neck is a condition of great rarity if we can judge by the recorded cases, which number only twenty. In the *Journal of the American Medical Association* for August, 1897, Dr. Helen Baldwin describes the following case. The patient was a girl, aged nineteen years. Five weeks before admission to hospital she noticed swelling of the feet, which gradually increased, and a few days previous an aching pain developed in the left axilla and in the left side of the neck. There was also swelling in the neck, which at first would disappear when she sat up and reappear when she lay down. The patient had suffered from rheumatic fever in childhood, and was troubled with tachycardia whenever she exerted herself. For several years she had not been strong. On admission she appeared very weak, and cyanosis and dyspnœa were present. The lips were livid and the veins of the nose dilated. The pulse was small, rapid, and compressible. There were double mitral and aortic murmurs and the heart was much enlarged. On the left side of the neck was a hard, tender swelling formed by the lower part of the external jugular vein. There was a hard lump in the left axilla extending down the arm for about five inches. The arm was œdematous and pale, not cyanosed. On the next day the left external jugular vein could be felt as a cord running up the neck, which was fuller on this side. The patient died from heart failure on the seventh day. A necropsy showed thickening of the aortic valves, thickening and adhesion of the mitral valves, and congestion and pneumonic changes in the lungs. The left innominate, subclavian, external and internal jugular veins were thrombosed. In the subclavian vein there was endophlebitis, which evidently, in conjunction with the feeble circulation, caused the thrombosis. An analysis of the cases of thrombosis of the jugular veins reveals the following facts in regard to the etiology. In nearly a fourth of the cases there was pressure on the vein often from a malignant growth. In nearly half there was a

grave blood dyscrasia—malignant disease, tuberculosis, syphilis, pyæmia or acute rheumatism. In five there was endophlebitis—rheumatic, syphilitic, or traumatic. In a third the condition was secondary to middle-ear disease. The prognosis is bad; the condition is seldom found except in the last stages of fatal diseases.

GUN ACCIDENTS.

THE bicycle and the gun seem to be at present vying with one another as to which shall kill or injure the greater number of people, but with this important difference, that whereas the one who injures himself or loses his life in a bicycle accident has, as a rule, only himself to blame, the death or injury of anyone from a gun is almost invariably due to the idiocy of someone else. From a list of various gun accidents reported in the daily press we select the following as an example. At Puckeridge, Herts, a medical man went out shooting with a friend, and on arriving home the friend left his gun in the carriage. A page boy took it out, and while carrying it across his arm it went off and shot a servant, inflicting fatal injuries. As to whether blame or not is to be attached to the boy we cannot say—this will never be known, for the only possible witness is dead—but it was certainly an act of the very greatest carelessness to leave a loaded gun in the carriage, and we cannot help rejoicing that it was not the medical man who acted thus. To carry the loaded gun whilst driving was courting death. Another sad death due to someone's carelessness occurred at Manea recently, when a child, aged four years, was shot by his brother with an old rusty gun found by the lad in the washhouse. The boy did not know that the gun was loaded, and we are not told whether he levelled it at the deceased or not; but it went off and killed the child. The responsibility for this death lies primarily at the door of the person who left the loaded gun where it was accessible to the children.

THE WORSHIPFUL COMPANY OF PLUMBERS AND THE CITY AND GUILDS OF LONDON TECHNICAL INSTITUTE.

JUDGING from the recent correspondence in the *Pall Mall Gazette* there is a sad absence of unity between the company and the institute, which is the more remarkable in that both bodies are professedly working with one object—viz., to increase the proficiency of the artisan. As is well known, the Bill promoted by the company for the registration of plumbers met with a good deal of organised opposition last session in the House of Commons and was unfortunately lost. An anonymous letter in the *Pall Mall Gazette* accuses the Institute, in which Sir Philip Magnus holds the post of superintendent of technological examinations, of organising this opposition to the Bill, because the company refuse to grant their diploma to individuals passed by the examiners of the institute, the company's objection being that the candidates of the institute are not submitted to any practical tests. If the statements circulated by our contemporary are correct, the action taken by the institute in connexion with the Plumbers' Registration Bill is much to be regretted by all interested in sound sanitation. The term "paper plumber," of which a good deal has been heard lately in connexion with examinations embracing theory only, has by no means an assuring sound. The public would be interested in hearing that there is no truth in these damaging statements. Unfortunately, Sir Philip Magnus does not see his way to do more in reply than to refute the matter in general terms. He is more concerned about some side issue as to the reputation of the Plumbers Company, for which anxiety, however, the company by their letter do not seem to be particularly grateful. If a public body like the institute undertake to grant a diploma to plumbers the public have a right to expect that such diploma is a guarantee, not of theoretical knowledge only, but of practical work also, without which latter the former is useless.

LONDON POST-GRADUATE COURSE.

ON Monday next (Oct. 4th) a daily course in practical bacteriology will commence at King's College, and will continue for six days. The winter session will commence on Oct. 11th, and will last for eight weeks. Classes will be held at the following hospitals and institutions—viz., in skin diseases at Blackfriars Hospital; diseases of the mind at Bethlem Hospital; diseases of the throat, nose, and ear at the London Throat Hospital; practical bacteriology at King's College; general medicine and surgery at the Central London Sick Asylum; hygiene and public health at the Parkes Museum; and in urine testing at the Institute of Preventive Medicine. Practitioners can attend all the classes during the term or can take out any class they select. They can enter for one or more weeks or all the courses as suits their convenience. All information can be obtained from the secretary, Dr. Fletcher Little, 32, Harley-street, W.

ANKYLOSTOMIASIS IN ASSAM.

A CORRESPONDENT who has been long resident in Assam, and is familiar with the conditions under which the coolies live in the tea gardens there, informs us that assuming all the deaths entered as due to dropsy and anæmia to be caused by ankylostomiasis, there were only 731 fatal cases coming under this head among a total of 5856 deaths occurring in 143 gardens recognised as being unhealthy. There is, however, another side to this question. Ankylostomiasis is not only not necessarily fatal, it is not even actually injurious to a man in otherwise fair health and living under normal conditions, but if a person infested by the parasite is brought to the malarious climate of Assam, and there contracts fever or dysentery, he collapses at once, rarely recovers his strength, and drags on a miserable existence for the rest of his life. Our correspondent goes on to quote from the Annual Report of the Sanitary Commissioner with the Government of India for 1892, in which Surgeon-Major E. Dobson, civil surgeon of Dhubri, stated that among 547 of the healthiest-looking of the coolies who arrived at Dhubri with the intention of executing labour contracts in Assam, ankylostoma were present in 454, or 83 per cent.; he found the parasite in persons newly arrived from Bengal, Behar, Orissa, Chota Nagpore, the Central Provinces, the North Western Provinces, the Punjab, Madras, and Nepal. Both sexes, at all ages, Hindu and Mohammedan alike, harboured the parasite without apparent ill effect. The sanitary commissioner also remarked: "From the reports furnished by a number of medical officers of the tea gardens, it appears that the chain of symptoms described as ankylostomiasis does not usually develop until some months after arrival in Assam." He, moreover, adds that the following conclusions seem justified: "1. The presence of the ankylostomum in the intestines does not necessarily give rise to serious symptoms unless other circumstances favour this result. 2. The presence of the ankylostomum in the intestines may be a serious complication, but is not the cause of Kálá ázár. 3. The so-called beri-beri of Ceylon and Assam has no connexion with the disease known by this name (the signs and symptoms of which are chiefly due to the effects of peripheral neuritis) which occurs in the Dutch East Indies, Hong-Kong, the Straits, and occasionally in Burmah; it is probable that this disease rarely, if ever, occurs in Assam." Dr. Shand, the medical officer of the Jorehat Tea Company, has also found that patients who were in a very bad state

improved rapidly as soon as they were freed from the ankylostoma by the thymol treatment and placed on tonics and good diet.

"FINEST IRISH HAMS."

ON Sept. 27th sundry fraudulent tradesmen received at Richmond Police-court, we will not say their deserts, but an inadequate punishment for deceiving customers. Their names were Messrs. Coppin Brothers and two assistants, Messrs. Meslin and Wheeler; Mr. Dunkin, the manager of Messrs. Williamson and Co., and an assistant, Mr. Simpson; Mr. James and his assistant, Mr. Lewis; Mr. Batchelor and his assistant, Mr. Lampsard. Inspector Moore asked for a Scotch ham and was supplied with one which was entered on the invoice as Scotch. On Mr. Moore mentioning who he was Mr. Meslin promptly admitted that the ham was American. Mr. Coppin was fined £5 and the assistants 10*s.* each. Messrs. Williamson sold an American ham as a Bath ham, and the assistant averred without contradiction that he had been told to say they were Bath hams. Mr. Dunkin, the manager, was fined £5 and the assistant 10*s.* Mr. James's case was specially flagrant. He exhibited a large placard with the words, "Finest Irish Hams, 9*d.* per pound," but Inspector Ward having bought one he was refused permission to see the invoice, and Mr. James admitted that the ham was American. He was fined £10 and his assistant 10*s.* In Mr. Batchelor's case the fine was £5 and in the case of the assistant 10*s.* In the report of the Select Committee on Food Products Adulteration it was suggested that offenders should be required to publish at their own expense a notice of their conviction in the public journals of the locality in which their places of business were situated or in any other such way as might be thought desirable to give due publicity to the conviction. This excellent method of punishment would be admirably fitted for such instances of fraud as those just described and would no doubt put an end to this deceitful practice. But the public are much to be blamed in this matter. They place implicit trust in the tradesman, and believe that he can supply them with a superior article at a very low figure, or at any rate at a price at which it must be well known the superior article cannot possibly be supplied. It is this blindness on the part of the public which encourages tradesmen to palm off various articles under a fraudulent description.

A GENERAL meeting of the Medical Society of London will be held at 11, Chandos-street, Cavendish-square, W., at 8 P.M., on Oct. 11th, to receive the treasurer's report and balance-sheet as passed by the auditors. The President having vacated the chair, the new officers will commence their duties, and an ordinary meeting of the society will be held at 8.30 P.M., when the incoming President, Dr. A. Ernest Sansom, F.R.C.P. Lond., will deliver the opening address on "The Investigation of Some of the Nervous Disturbances of the Heart." After this a paper will be read by Mr. William Anderson, F.R.C.S. Eng., on "John Arderne, the Father of English Surgery, and his Time.

THE ROYAL VICTORIA HOME, BRISTOL.—This Institution, founded through the efforts of some charitable people about a year ago, is doing useful work. Its objects are to provide a home for poor inebriate and other women and for deserving female offenders. Such of these as are unmarried are trained for domestic service and all are instructed in housewifery generally. The home is licensed both under the Inebriates Act and by the Home Secretary. It is well known that the atmosphere of a prison is not conducive to reformation, and an institution of this kind is often the means of setting those who have yielded to temptation in the right way again.

THE VACANCY IN THE GENERAL MEDICAL COUNCIL.

SINCE our last issue the position has somewhat changed, inasmuch as Sir Walter Foster, M.P., has entered the lists. We publish Sir Walter Foster's address to the profession below, and also an account of a meeting held on Wednesday afternoon last in support of his candidature.

Mr. George Jackson asks us to announce that he has retired from his candidature as a Direct Representative on the General Medical Council in favour of Sir Walter Foster, whom he considers to be "a candidate who is well worthy of our support. He will oppose any attempt to create an inferior order of practitioners by throwing the ægis of registration over the midwives, and, I believe, is the strongest candidate all round that we can have at the present time." Mr. Jackson also wishes to thank all those who had promised to support him.

Dr. R. R. Rentoul also sends us a letter for publication, in which he asks "all practitioners to record their vote in favour of Sir Walter Foster."

We have received a great number of letters urging the merits of the different candidates, a large proportion of which have not hesitated to point out also their demerits. We need hardly say that in the latter case we have given preference to those which are temperately written and signed in full. From these letters we think it is imperative that Sir Walter Foster should make a clear and full explanation to the profession of the circumstances under which the unfortunate and unfortunately-worded interview in the *Young Man* came to be published.

A communication signed by Dr. J. Rees Gabe and Mr. R. B. Anderson (London), Mr. George Jackson (Plymouth), Mr. Joseph Smith (Chiswick), and Mr. W. G. Dickinson (Putney) has also been sent to us. It contained a copy of a letter which has been addressed by these five gentlemen to all the candidates, enclosed in which is a series of questions upon which the candidates are invited to express their opinions. Before publishing these questions we prefer to wait until we have received from the writers of the letter information as to the replies they have received.

Dr. Hugh Woods, President of the Incorporated Medical Practitioners' Association, asks us to publish in THE LANCET the following resolution which was unanimously passed at a meeting of the Council of the Association held on Tuesday last:—

"The Central Council appreciates the motive of Mr. George Jackson's withdrawal as a candidate at the present election of a Direct Representative on the General Medical Council. Having heard Sir Walter Foster's letter to the Chairman of this Council, and having regard to the invaluable services rendered to the medical profession by Sir Walter Foster in his ten years' tenure of office as a Direct Representative, and to the fact that he supports the programme of this association, the Central Council strongly recommend that the active support of the members of this association should be given at this election to Sir Walter Foster."

At a meeting of the Medico-Ethical Association of North-East London, to be held to-night (Friday, Oct. 1st) at 9 P.M., at 184, Mare-street, Hackney, Mr. Victor Horsley will read a paper on Medical Reforms.

On the afternoon of the same day at 5 P.M. a meeting will be held in support of Mr. Victor Horsley's candidature at the Medical Society's rooms, 11, Chandos-street. On the following day (Saturday, Oct. 2nd) there will be a meeting at Norwich at 4.15 P.M. in the library of the Norfolk and Norwich Medico-Chirurgical Society, Guildhall-hill, Norwich, with a similar object.

SIR WALTER FOSTER'S ADDRESS.

TO THE REGISTERED MEDICAL PRACTITIONERS OF ENGLAND AND WALES.

LADIES AND GENTLEMEN,—On my return from Canada to-day I found many letters from valued friends urging me to become a candidate for

the vacancy on the General Medical Council caused by the regrettable resignation of Dr. Rentoul. Others whom I have consulted strongly press upon me the same course, and I have therefore decided that in the present crisis of Direct Representation it is my duty once again to offer my services to my professional brethren.

My experience of the struggles during recent sessions of Parliament in connexion with the Public Health (Scotland) Act and the Midwives Registration Bill has also influenced me, as I am convinced that the most watchful care must be exercised by someone authorised to speak for the profession in order to prevent legislation alike hurtful to the public and hostile to the profession.

The ten years' service which I gave to the Council is the best guarantee of the spirit in which I should, if honoured by your confidence, again take up the work.

As in the past, I am prepared to advocate:—

1. The increase of the representative element on the Council.
2. The maintenance of a high standard of professional education, an increase of the requirements of the preliminary examination, and the establishment of one uniform qualifying examination for each division of the kingdom.
3. The more vigorous exercise of the existing powers of the Council for the suppression of improper and irregular modes of practice and for protecting the public from unqualified persons and quacks.
4. The amendment of the Medical Acts in such a way as to strengthen the powers of the Council and more effectively protect the interests of the general practitioner.

While anxious to improve the education and training of midwifery nurses, I am resolutely opposed to any legislation which would register women as midwives and enable them to practise midwifery without the superintendence of a registered medical practitioner. I have fought this battle in the interests of the poor and in support of the general practitioners now for some years, and I hope it may be my privilege as your representative to carry the struggle to a successful issue.

I am, your obedient servant,

Birmingham, Sept. 23rd. B. WALTER FOSTER.

SIR WALTER FOSTER'S CANDIDATURE.

The room in which the Medical Society holds its meetings at 11, Chandos-street, Cavendish-square, was very full on Wednesday afternoon last when Sir Walter Foster, M.P., made a statement with respect to his policy as a candidate for the General Medical Council.

The CHAIRMAN (Dr. Leonard W. Sedgwick), in calling upon Sir Walter Foster, quoted from Mr. Victor Horsley's election address the opinion that "the prospect of advancing medical reform depends more upon the previous training of the representatives than upon the fact of their belonging to one particular section of the profession," and said that Sir Walter Foster had both the training and an accurate knowledge of the Medical Acts.

Sir WALTER FOSTER thanked those present for coming to the meeting. It was, he thought, the largest gathering that had ever been held in any part of the United Kingdom for the purpose of listening to the address of a candidate for the General Medical Council as a direct representative. He had come forward at the present time because he believed there was an exceptionally grave crisis in the history of direct representation. Since his resignation the expressions of regret from the profession that he had severed his connexion with the General Medical Council had been so frequent that he felt these expressions were almost reproaches. On his return from Canada he found many telegrams and letters awaiting him, urging him to become a candidate for the present vacancy. Under the circumstances, being comparatively still a young man and remembering what he owed to the medical profession, he thought it would be wrong of him if he did not come forward and do what he could in the interests of the profession. His present policy was very much the same policy as that which had guided him when he last had the honour of representing the profession on the Council. He referred to his stand for the profession as against the Corporations, his efforts for the suppression of covering, and his desire for increased direct representation. He was also anxious to get back to the General Medical Council because he felt that the state of the general body of the profession was most serious. Never had he known it so overcrowded or put to such shifts on account of irregular practice, hospital abuse, and medical aid associations. The general practitioner had a much harder lot than he had thirty years ago. While the expense of training was greater in the actual battle of life competition was most severe. He wanted to improve that state of things. In one respect these evils would be overcome by raising the standard of the preliminary examination. A little more care and scrutiny on the part of the Council might do something practical for the other evils. With regard to the midwifery question, he said he had never been opposed to the proper education of women who attend midwifery cases as nurses, but he was absolutely opposed to any legislation which would register women as midwives and enable them to practise without the superintendence of a registered medical practitioner. He would not be a party to the sanctioning of any Bill which would enable them to attend the so-called cases of natural labour which were never natural till they were safe, and which no man could define till they were over. He would oppose such legislation on two grounds—first, its contravention of the Medical Acts, and, secondly, on the ground of its injury to the poor and the profession. He concluded by referring to the action he had taken in endeavouring to strengthen the hands of the Council in dealing with penal cases, and expressed his willingness to serve the profession in the future as he had done in the past ten years on the Council if the profession would give him their confidence.

In answer to questions by Dr. HUGH WOODS, Dr. ALDERSON, Dr. BATEMAN, Mr. CREASY, Mr. STANLEY BOYD, and others,

Sir WALTER FOSTER said the Universities elected their own representatives on the General Medical Council, and he did not think it was within the powers of the Council to say how those elections should be made, but he would be prepared to raise the question whether such representatives were properly elected. No one had called his attention to the fact that the Bill of 1886 had taken from medical men holding British qualifications the right of practising in any part of the British dominions, but in other ways he had amended the Bill for the professional good. He did not practise in London, and though he lived there part of his time had no name on his door-plate. He had assisted to increase the curriculum to five years and he was in favour of re-establishing the system of apprenticeship. He concluded by giving the reasons for his previous resignation and by remarking that every man who was required to give a certificate by the Legislature should be paid for the same.

Dr. CLEVELAND moved: "That this meeting, having heard Sir Walter Foster's statement, expresses its confidence in him, and promises to use its best efforts to secure his return as one of the Direct Representatives on the General Medical Council."

Dr. WALLACE seconded the motion.

Dr. BATEMAN, apologising for introducing the matter, and remarking that members of the General Medical Council should be beyond suspicion, directed attention to an interview with Sir Walter Foster particulars of which had appeared in the October issue of the *Young Man*. This he characterised as a professional advertisement. He moved the previous question.

Dr. RISIEN RUSSELL seconded.

Sir WALTER FOSTER, in explaining the matter, said he in some respects had the misfortune to be a public man as well as a doctor, and a public man was occasionally interviewed. He went on to explain how the published interview had arisen from a conversation which he had had in a railway-train with a gentleman, and he had only given permission for the publication of the interview under the belief that it was solely for political purposes. He was sorry that any reference should have been made to his profession in the printed interview, but the article was published while he was away in Canada, and on his return he had seen the editor of the magazine and requested him either to withdraw the paper from circulation or to delete the objectionable matter. With regard to the photograph of his consulting room and the representation of the sphygmograph Sir Walter Foster said that it was not supplied for the purposes of the article, but was one that had been taken some years ago for illustrating a series of articles on the magistrates of Warwickshire.

The motion for the previous question being lost the resolution was carried by 54 votes to 10.

Many of those present abstained from voting.

THE INDIAN RISING.

THERE are many people who, drawing their conclusions from the latest items of intelligence, seem to think that the neck of the tribal insurrection on the North-West frontier has been broken and that the rising promises to come to a speedy and premature collapse. So far as the Mohmands are concerned this is probably the case, for they are as a rule a faint-hearted tribe as far as fighting goes; but the Afridis and Orakzais have still to be dealt

with, and the expedition against them is only just beginning. These tribes are a sturdier race—they are a more courageous, treacherous, and wily enemy. Although we entertain no doubt as to what will be the result of Sir William Lockhart's expedition against them it will involve a good deal of expense and difficulty, as well as probably a good deal of hardship and fighting on the part of our troops before the campaign is brought to a successful termination and a durable peace is obtained. The plan of the Tirah expedition has now been settled. Major-General Blood's force, with its three brigades, will remain in the Mohmand country in order to protect General Lockhart's flank from attack and to cut off, at the same time, the Afridis from the tribes in the north, leaving General Lockhart's force free to march to Tirah and promptly deal with the Afridis. The General's force for this purpose will be composed of regiments collected on the frontier in and about Kohat, and the expedition will start about Oct. 9th. The Mohmands seem to have fought sharply and well against General Jeffreys' brigade, and to have succeeded in inflicting some loss and a very brief temporary check to its successful progress; but the general result of the fighting that has taken place up to the present time has been success—and brilliant success—to the British forces. The devotion and gallantry of the natives have been conspicuous features. The health and spirits of the troops are reported to be good, and the sickness has not been at all great. The wounded are progressing favourably. As the season advances the conditions will become more and more favourable to the expeditionary force advancing against the tribesmen. No adequate explanation has yet been given of the reason for this general rising. It is probable that there was no single cause but that many factors were at work. The "forward policy" in Chitral could hardly have been the sole cause, for the tribes there have remained quiet. There has been an extended outbreak of fanaticism excited by the Mullahs, and it is probable that the recent successes of Turkey have not been without some influence as regards the rising at this time.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On Diphtheria in the Holywell Parishes, by Dr. F. ST. GEORGE MIVART.—The area about the Dee estuary has, by reason of disease and faulty administration, received an exceptional amount of attention from the Local Government Board; indeed, since 1871 there have been no less than ten visits of medical inspectors, the one preceding Dr. Mivart's inspection being recorded in the exhaustive report by Dr. Bruce Low on sewage pollution of the Dee. But diphtheria in the Holywell urban and rural parishes was the immediate cause of the present report, and Dr. Mivart at the beginning recalls the fact that a fatal cynanche, which was doubtless the same disease, can be traced back at least as far as 1794. In the urban parish much of the water-supply is exposed to pollution; the drainage arrangements are the same faulty ones that have been described by previous inspectors; and as to the disposal of excreta and refuse, matters are stated to be as bad, if not worse, than they were twenty years ago. The dwellings are also often thoroughly bad, decay and unfitness for habitation being their prominent features. In the rural parish of Holywell the dwelling accommodation is also most faulty, natural decay being at times the only cause that leads tenants to vacate the cottages. Many are built back-to-earth or back-to-back; conditions which, when associated with overcrowding, are typical of those which conduce to the maintenance and spread of a disease such as diphtheria. In one cottage access to the bedroom above was obtained by climbing up an inverted table; in "two rows of hovels," each of one room only, there was no back ventilation, and three feet from them in front was an excavated hill. Added to such conditions we read also of the surrounding land being in places water-logged and sewage-logged. There has, however, been improvement in the water-supply, notably in Bagillt; and the rural council have spent money in drainage works, some of which have unfortunately turned out badly. This is the more to be regretted because it may postpone the abolition of conditions to which the strongest adjectives descriptive of revolting filth are properly applied. The diphtheria in the urban parish was somewhat restricted; it was associated in its spread with a board school, and with the failure to check it by such methods as disinfection and isolation, and it spread a good deal in families. In the rural parish 183 cases had been notified in the eleven months ending November, 1896, and 22 cases had terminated fatally, besides which it seems clear that a number of minor attacks had escaped notice. Certain schools were closed, and both bedding and clothing were destroyed; but apart from a few such measures no energetic action was taken by the local authorities, who have, notwithstanding previous warnings, remained without any proper means for isolating or controlling infectious disease. Districts like this are the black spots on our country's record of improved sanitary administration; and until the inhabitants of such localities learn the value of human life and of health, and give proof of it by sending to their urban and rural councils those who will make public health a first consideration, it seems well-nigh useless to offer them advice and to make recommendations for their adoption.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Sheffield Urban District.—Dr. Harvey Littlejohn, who has recently relinquished his post as medical officer of health of Sheffield, reports that the estimated population of the city at the middle of 1896 was 347,278. The general death-rate for 1896 was 19·3 per 1000, the rate having only on one prior occasion—i.e., 1894—fallen below 20 per 1000. Infantile mortality was also small for Sheffield, being 171 per 1000 births, the average for the last ten years being 178 per 1000 births. Good results seem to have accrued as regards control of measles by the coöperation of the School Board authorities with those of the sanitary department, a notification being sent to the medical officer of health of such children as were suspected of being absent from school owing to measles, and similarly the sanitary authority furnished the school-master with a certificate when the invaded house was free from infection. Plumbism caused but three deaths, all of which were of file-cutters, in Sheffield in 1896, as against 5 in 1895 and 9 in 1894. Dr. Littlejohn thinks, however, that only a small proportion of the deaths primarily attributed to lead poisoning are certified as such in the death certificate, the intercurrent affection which kills the patient masking the primary cause. Dr. Littlejohn bases this opinion upon the extensive prevalence of lead poisoning among workers in the trade. There are but 200 beds provided in Sheffield for the isolation of infectious disease, a number which, as Dr. Littlejohn points out, is quite inadequate for a population of some 350,000. While taking care to provide adequate accommodation for the poorer classes the corporation should, it is urged, consider the question of providing suitable accommodation for the wealthier classes, who could easily afford to pay for it. Although there is perhaps from a public health standpoint less necessity for the isolation in hospital of cases occurring in houses where some sort of home isolation is possible, there can be no question as to the enormous boon which hospital accommodation is to the wealthier classes. In London, for instance, this class has the accommodation of the London Fever Hospital and of the Mary Wardell Convalescent Home, and anyone who has suffered from a prolonged attack of scarlet fever may have learnt to value these institutions. Dr. Littlejohn has for the last five years endeavoured to persuade the Sheffield sanitary authority to provide a public abattoir, but unfortunately on his leaving Sheffield this desirable addition is still *in nubibus*. In years to come we shall look back with astonishment upon the fact that Sheffield, and, for the matter of that, other large towns, did not in the year 1896 possess this most elementary provision against the sale of diseased and unwholesome meat. Among the advantages to be derived from public slaughter-houses Dr. Littlejohn mentions the prevention of unnecessary cruelty, and the detrimental moral effect which the sight of animals being slaughtered has upon the young. It is certainly most desirable to prevent this, and we have ourselves seen crowded around the windows of a slaughter-house during the hours of slaughter groups of children anxious to witness the killing process.

Essex County District.—Infantile mortality will, Dr. Thresh thinks, remain practically undiminished until the

simple laws of the preservation of health and of the necessities of infant life are taught, especially to girls, in the higher standards of our elementary schools. A certain amount of false delicacy is, we suspect, a formidable obstacle in the carrying-out of this suggestion. In the matter of infectious disease Dr. Thresh records the decreased prevalence of diphtheria throughout the county, and this fact is the more interesting inasmuch as Essex has figured very prominently in the past for its excessive diphtheria death-rate. We note in Maldon Urban District that a case of diphtheria was associated with the unloading of offensive London manure, while another case was thought to have derived infection from a cat. Unfortunately from a view-point of scientific interest the pharynx and larynx of the cat were not sent to Dr. Thresh for bacteriological examination. Where there is a county medical officer competent to make bacteriological examination it is well for the district medical officers of health to be alive to the opportunities thus afforded them. Typhus fever was hardly to be expected in the present day in the rural districts of Essex, but two patients were diagnosed as suffering from this disease in the Dunmow Rural District. No attempt has been made to put Part III. of the Housing of the Working Classes Act into operation in Essex, and Dr. Thresh thinks that until some arrangement is come to for providing money from a county or imperial fund labourers' cottages will not be erected. The systematic inspection of districts does not appear to have received as much attention as it should do. Without such systematic inspection there cannot be that seeking out of nuisances which is so much insisted upon by the Local Government Board. In Southend, where a house-to-house inspection is in progress, 73 per cent. of the drains in one street were found to be defective.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6176 births and 3600 deaths were registered during the week ending Sept. 25th. The annual rate of mortality in these towns, which had declined in the six preceding weeks from 29·5 to 18·5 per 1000, further fell last week to 17·1. In London the rate was 15·7 per 1000, while it averaged 18·0 in the thirty-two provincial towns. The lowest rates in these towns were 10·3 in Birkenhead, 10·4 in Swansea, 11·2 in Plymouth, and 13·7 in Brighton; the highest rates were 21·3 in Sunderland, 22·3 in Manchester, 22·4 in Sheffield, and 22·5 in Liverpool. The 3600 deaths included 607 which were referred to the principal zymotic diseases, against 945 and 721 in the two preceding weeks; of these, 327 resulted from diarrhœa, 75 from diphtheria, 57 from "fever" (principally enteric), 54 from measles, 51 from whooping-cough, and 43 from scarlet fever. No death from any of these diseases was recorded last week in Croydon or in Plymouth; in the other towns they caused the lowest death-rates in Birkenhead, Swansea, and Halifax; and the highest rates in Wolverhampton, Hull, Burnley, and Preston. The greatest mortality from measles occurred in Preston and Burnley; from scarlet fever in Leicester and Gateshead; from "fever" in Derby, Hull, and Bolton; and from diarrhœa in Liverpool, Hull, Preston, and Wolverhampton. The mortality from whooping-cough showed no marked excess in any of the large towns. The 75 deaths from diphtheria included 45 in London, 4 in Birmingham, 3 in West Ham, and 3 in Leicester. No fatal case of small-pox was registered during the week under notice either in London or in any other of the thirty-three large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had been 3528, 3579, and 3653 at the end of the three preceding weeks, had further risen to 3697 on Saturday last, the 25th ult; 358 new cases were admitted during the week, against 376 in each of the two preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 116 and 113 in the two preceding weeks, rose again last week to 165, but were 11 below the corrected average. The causes of 30, or 0·8 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Cardiff, Manchester, Bradford, and in sixteen other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Nottingham, Liverpool, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the three preceding weeks from 18·1 to 19·4 per 1000, declined last week to 17·8, but exceeded by 0·7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·0 in Paisley and 15·1 in Aberdeen to 18·7 in Edinburgh and 22·0 in Greenock. The 532 deaths in these towns included 35 which were referred to diarrhœa, 20 to whooping-cough, 9 to "fever," 6 to scarlet fever, 5 to measles, and 3 to diphtheria. In all, 78 deaths resulted from these principal zymotic diseases, against 98 and 101 in the two preceding weeks. These 78 deaths were equal to an annual rate of 2·6 per 1000, which was 0·3 below the mean rate last week from the same diseases in the thirty-three large English towns. The 35 fatal cases of diarrhœa showed a further decline from those recorded in recent weeks, and included 11 in Glasgow, and 6 in Edinburgh. The deaths from whooping-cough, which had been 15 and 17 in the two preceding weeks, further rose to 20 last week, of which 13 occurred in Glasgow and 4 in Dundee. The 9 deaths referred to different forms of "fever," corresponded with the number recorded in the preceding week, and included 5 in Glasgow and 2 in Edinburgh. The fatal cases of scarlet fever, which had declined in the three preceding weeks from 10 to 2, rose again to 6 last week, of which 5 occurred in Edinburgh. The 3 deaths from diphtheria were below those recorded in any recent week, and included 2 in Edinburgh. The deaths referred to diseases of the respiratory organs in these eight towns, which had been 78 and 96 in the two preceding weeks, were again 96 last week, and exceeded by 40 the number in the corresponding week of last year. The causes of 25, or nearly 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·4 and 23·9 per 1000 in the two preceding weeks, further rose to 28·3 during the week ending Sept. 25th. During the past twelve weeks of the current quarter the death-rate in the city has averaged 23·8 per 1000, the rate during the same period being 19·7 in London and 18·4 in Edinburgh. The 190 deaths registered in Dublin during the week under notice showed an increase of 30 upon the number in the preceding week, and included 29 which were referred to the principal zymotic diseases, against 28 in each of the two preceding weeks; of these 21 resulted from diarrhœa, 9 from "fever," 4 from scarlet fever, 4 from whooping-cough, 1 from diphtheria, and not one either from small-pox or measles. These 39 deaths were equal to an annual rate of 5·8 per 1000, the zymotic death-rate during the same period being 2·1 in London and 3·0 in Edinburgh. The fatal cases of diarrhœa, which had declined in the four preceding weeks from 32 to 13, rose again to 21 last week. The deaths referred to different forms of "fever" which had been 4 and 6 in the two preceding weeks, further rose to 9 last week. The 4 fatal cases of scarlet fever also exceeded the numbers recorded in recent weeks, while the mortality from diphtheria and from whooping-cough showed a decline. The 190 deaths in Dublin last week included 48 of infants under one year of age and 34 of persons aged upwards of sixty years; the deaths of infants exceeded the number recorded in any recent week, while those of elderly persons showed a decline. Eight inquest cases and 10 deaths from violence were registered; and 58, or nearly a third, of the deaths occurred in public institutions. The causes of 12, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-MAJOR A. P. O'CONNOR has arrived in Dublin for duty. Surgeon-Captain C. W. Reilly has embarked on board the P. and O. s.s. *Canton*. Surgeon-Captain T. C. McCulloch has embarked for India. Surgeon-Lieutenants

J. Grech and J. A. Murison are warned to be ready to embark for India in the transport *Simla* at Southampton. Surgeon-Major R. H. S. Sawyer has embarked for Egypt.

The promotion to the rank of Brigade-Surgeon-Lieutenant-Colonel of Surgeon-Lieutenant-Colonel C. H. Swayne is antedated to July 24th, 1897, vice R. Harman, M.B., deceased. Surgeon-Captain William J. Smyth, M.D., resigns his commission.

NAVAL MEDICAL SERVICE.

The following appointments are announced: — Fleet-Surgeon C. C. Godding to the *Haulbowline*. Staff-Surgeons: William R. M. Young to the *Briton*, and Percy E. Maitland to the *Volage*. Surgeons: Ernest A. Shaw to the *Trafalgar*; Hugh P. Turnbull to the *Victory*; Walter B. Maurice, Walter H. O. Garde, Charles R. Sheward (for disposal), Eustace Arkwright, Edward D. J. O'Malley, and Walter R. Hopkins, all to the *Victory*; Frederick C. Stern and Henry Hunt, both to the *Pembroke*; Sidney Roach, Algernon C. Bean, and Robert H. Mornement, to the *Wildfire*; Moyle Breton, Richard F. Clark, Harold E. Fryer, Samuel Connor, and Edwin Folliott, all to the *Vivid*; Francis J. Barter to the *Heron*; Oswald Rees to the *Jackdaw*; and E. S. Reid to the *Seaflower*.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain Robert Ebenezer Beveridge, M.B., 3rd Volunteer Battalion the Durham Light Infantry, to be Surgeon-Captain.

YEOMANRY CAVALRY.

Dorset (Queen's Own): George Herbert Staines Daniell, M.B., to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 2nd East Riding of Yorkshire (Western Division, Royal Artillery): Surgeon-Major J. Sherburn, M.B., to be Surgeon-Lieutenant-Colonel. *Rifle:* 4th Volunteer Battalion the South Wales Borderers: Surgeon-Captain S. B. Mason to be Surgeon-Major. 2nd Volunteer Battalion the Royal Sussex Regiment: Brigade-Surgeon-Lieutenant-Colonel C. F. Lewis is retired under the provisions of paragraph 111 of the Volunteer Regulations, 1896, with permission to retain his rank and to continue to wear the uniform of the battalion on his retirement, vacating at the same time his appointment in the Sussex Volunteer Infantry Brigade. 1st Volunteer Battalion the Durham Light Infantry: The under-mentioned Surgeon-Captains to be Surgeon-Majors:—J. W. Blandford and G. Middlemiss.

THE ARMY MEDICAL STAFF.

There are various rumours afloat regarding the anticipated action of the authorities with the view of overcoming their difficulties in the way of getting candidates for the Army Medical Service. It is said that a new warrant is to be issued introducing a modified regimental system. A great many points have been conceded with the object of removing the grievances of which officers of the Army Medical Staff have complained, but nothing has been done to give effect to the recommendations of different committees and the strong desire of the medical officers themselves—viz., the formation of their service into a Royal corps, thus placing them on the same footing as the Royal Engineers and Royal Artillery. We do not understand why this should not be done, unless it be that the conferring of purely military titles upon medical officers has proved a stumbling-block in the way of the military officials.

We understand that the Quartermaster-General, the Director-General of the Army Medical Department, and the members of the Army Sanitary Committee visited the Portsdown Hills last week to select a site for a new military hospital for the troops in the Portsmouth garrison.

DRUGS ABOVE THE PROPER STRENGTH.—At a meeting of the Glamorganshire Local Government Committee held on Sept. 16th the report of the county analyst was presented. It stated that in one case a grocer had sold liquor nucis vomicæ eight times the usual strength; and in three instances spirit of camphor had been sold which was too strong, the excess being 8 per cent. in one case, 13 per cent. in another, and 16 per cent. in the third; 5 samples of tincture of benzoin were reported to be below the proper strength.

Correspondence.

"Audi alteram partem."

"THE ELECTION OF A DIRECT REPRESENTATIVE ON THE GENERAL MEDICAL COUNCIL."

To the Editors of THE LANCET.

SIRS,—On my return from Canada at the close of last week I was greeted with the unexpected news that Dr. Rentoul had resigned the chair in the General Medical Council to which he had been so recently elected by the voice of the profession. I found many letters urging me to re-consider my action in leaving the Council and to permit myself to be nominated for re-election, with assurances of earnest support if I would do so. I am profoundly grateful to my many friends for these proofs of confidence and appreciation; but, seeing that the causes which originally led to my resignation are all operative still, some with increased influence, I find it impossible to accede to the request.

But I am beyond measure pleased to see that my younger colleague, Sir Walter Foster, is again a candidate, and I most heartily wish him success. That his reappearance in the Council would be acceptable to that body is, I think, beyond question. His experience of its work and his parliamentary position alike point him out as a most eligible representative, and the profession is, in my opinion, to be congratulated on the opportunity afforded to it of again securing his services. Will the profession, for once, rise in its strength, and, putting aside the deadly apathy which has hitherto marred all the efforts of its representatives, unite to record its vote in favour of one who has already proved himself a worthy representative? Sir Walter is too well known to leave any room for doubt as to his capability, and his world-wide reputation marks him as a candidate whose claim cannot be surpassed.

I am, Sirs, your obedient servant,

C. G. WHEELHOUSE.

To the Editors of THE LANCET.

SIRS,—The impending election of a Direct Representative upon the General Medical Council is one of vital importance to the medical profession. It is so because the principle involved is that of reform. In Mr. Victor Horsley we have the undoubted champion of that cause. No other person knows more of the details connected with the questions of larger and those of lesser importance to the medical profession. No one is therefore more alive to the paramount necessity of reform. In casting their votes, then, it is to be hoped that the members of our profession will do so with the full knowledge that in voting against Mr. Horsley they are voting, not so much against him personally, but against the reform of the various anomalies connected with the constitution and government of the profession which exist at the present time.

I am, Sirs, yours faithfully,

Hatfield, Herts, Sept. 28th, 1897. LOVELL DRAGE.

To the Editors of THE LANCET.

SIRS,—The profession must again appeal to your valuable assistance in the selection of a suitable candidate to fill the vacancy of Direct Representative on the General Medical Council. The latest development is remarkable. Sir Walter Foster is suddenly sprung upon the constituents, supported by a combination of strangely opposed elements. First he takes the place of the nominee of the Incorporated Medical Practitioners' Association, the council of which authority decreed that none but a general practitioner should have its support, nor any candidate who did not oppose uncompromisingly all legislation for the control of midwives. He is immediately taken in hand by the President of Council of the British Medical Association, and, lastly, has accepted the help of Dr. Rentoul. Surely the Council of the British Medical Association will have something to say to Dr. Saundby for assuming the responsibility of furthering the interests of any candidate without consulting the Association or his own Council. It may be argued that whatever official position a man may have, he has a perfect right to an individual opinion and to express it. Quite true, but there are some exceptional

circumstances in this connexion. At the annual meeting of the British Medical Association, when the conduct of the official organ was under consideration, there was a strong and almost unanimous feeling that the Association should take a foremost part in the selection of candidates as direct representatives on the General Medical Council, and that they should sit in that chamber supported by the influence of that large association, and the indifference of Dr. Saundby to the wishes of its members is wholly unjustifiable.

A committee was formed in Manchester immediately on hearing of the vacancy for the purpose of selecting a suitable, candidate and a telegram was sent by the officials to the Association, asking what action, if any, it was intending to take in the matter. This with a view to come to some general agreement as to the candidate to be selected. The reply was that they were "awaiting the instructions of the President of Council." This was on Sept. 14th. On the 16th a similar message was sent to Dr. Saundby's private address, and the reply received was that he was not expected home from Canada until the following Sunday. It is right, Sirs, that you should know this, and I sincerely trust you will unhesitatingly indicate in your Saturday's issue whom you deem to be the best candidate; and doubtless the profession will show its disapprobation of the conduct of the President of Council in its vote against Sir Walter Foster.

Accompanying Sir Walter Foster's address is a letter of recommendation of his fitness for the appointment, and it is signed by Robert Saundby, chairman, and C. G. Wheelhouse, and R. R. Rentoul, vice-chairmen. I will refer simply to two statements in this certificate of merit. These gentleman refer to Sir Walter Foster as a "tried and experienced medical reformer." A review of the minutes of the General Medical Council while he sat there will traverse this statement. Again, he is called a provincial practitioner! A word to the general practitioner. Sir Walter Foster backed one of the first Midwives Bills introduced into Parliament, and the worst Bill ever framed by the Midwives Institute and other unauthorised bodies. By this measure a poor man was not allowed to take proceedings against a midwife whatever injury she may have done to his wife during her confinement through either carelessness or ignorance, unless he first obtained the consent of the Attorney-General (see Clause 16). She was under no control and unless she thought fit was not required to send for a medical man, but was made the sole judge as to what was or what was not "natural labour." She had power to claim fees in court for operations. Is it likely any practitioner would lend his support to a candidate for a seat on our education board who had made proposals so dangerous to the public and so contrary to the honour, the dignity, and the welfare of our profession?

I am, Sirs, yours truly,

Old Trafford, Sept. 23th, 1897. JAMES BRASSEY BRIERLEY.

To the Editors of THE LANCET.

SIRS,—Everyone will admit that in Sir Walter Foster, M.P., and Professor Victor Horsley, F.R.S., we have two excellent candidates, and must regret to see them opposing each other. It is quite evident that nineteen-twentieths of their programme is identical and that the remaining one-twentieth is the midwives question. Essential as this difference is, I will not for the moment dwell upon it. Sir Walter Foster has faithfully served the profession for ten years on the General Medical Council, a mark of appreciation of which the British Medical Association recently presented him with its gold medal at the London meeting. For many years previously he had been identified with medical progress, having been qualified in 1860. On the other hand, Mr. Horsley has been President of the Medical Defence Union for four and a half years, and was qualified in 1881. There is thus a great difference between the experience of the two men in medical politics. There is evidently plenty of time before Mr. Horsley, without endeavouring to oust Sir Walter Foster just now; and as the former has had his four and a half years' experience in the Medical Defence Union, and the latter ten years on the General Medical Council, it will strike everyone as the wisest course for the benefit of the profession for each to go on with the work for which he is so eminently "fitted by his previous training" that Mr. Horsley so aptly quotes. We must also bear in mind that Mr. Horsley could not retain the above Presidency if he were elected on the General Medical Council. This would be a distinct loss to the profession and to the Medical Defence Union. I have no doubt that the strongest candidate to elect and the wisest course to take at the present juncture and best calculated to promote our interests is Sir Walter Foster, and thus enable Professor Horsley to continue as the President of the Medical Defence Union.

I am, Sirs, your faithfully,

G. H. BROADBENT.

Ardwick-green, Manchester, Sept. 28th, 1897.

To the Editors of THE LANCET.

SIRS,—Though other candidates may receive local support we may without offence assume that our choice for the vacant seat on the General Medical Council lies between Mr. Horsley and Sir Walter Foster. We are entitled, I think, to ask why Sir Walter Foster, who insisted last year on being relieved of the responsibilities of office, now seeks re-election, and why, having the reputation of a reformer, he comes forward backed by Sir Samuel Wilks, the reactionary members of the Council of the British Medical Association, and by Dr. Rentoul. The former represent the present spirit of *laissez faire* and *non possumus* (Sir Samuel Wilks even having publicly derided the notion that the general practitioner has any right to a reform of the grievances that press so heavily upon him), and the latter gentleman represents now—we scarcely know what.

Sir Walter Foster doubtless would describe himself politically as being a reformer, but as far as our profession goes it is difficult to see wherein his claim to be considered one lies. His position in the House of Commons, his place on the General Medical Council, and on the Council of the British Medical Association gave him large political power, and should have given him a wider political influence than any medical man has ever enjoyed, but nowhere and at no time has he ever originated any suggested professional reform, or himself formulated any such measure, either in the House of Commons or in the General Medical Council. The Medical Defence Union has received from him no support, but, on the contrary, direct hostility in the matters brought by them before the General Medical Council. A careful study of the Minutes of the Council will show, too, that Sir Walter Foster (with the exception of last year) hardly ever stayed long at any meeting—that he just put in an appearance and left, presumably for Westminster, where his presence was needed. It is a doubtful advantage to have a solitary Member of Parliament on the Council. His influence in the House is usually overrated, and any influence exerted by the General Medical Council at all is more effectually employed in the Privy Council Office and in the lobby of the House than in the House itself, while to divide the attentions of an official member between the House and the General Medical Council must inevitably result in the neglect of the work of the latter body.

If medical men wish for any reform in the legislation and grievances of our profession they must return a reformer and not a candidate who is put forward by the most reactionary influences. In Mr. Horsley we have a candidate sincerely interested in reform, of high scientific status, and, as he has proved by the position of the Defence Union, a capable man of affairs, honest and industrious.

I am, Sirs, yours faithfully,

Westerham, Sept. 27th, 1897. A. MAUDE.

To the Editors of THE LANCET.

SIRS,—The resignation of Mr. Jackson is quite as surprising as the resignation of Dr. Rentoul, and especially as he retires in favour of Sir Walter Foster. In order not to complicate the election I wrote to Mr. Jackson telling him that I would vote for him, and I would retire as I did not wish to have two general practitioners in the field. In a triangular fight Mr. Jackson would have had a good chance. Had I known that Mr. Jackson intended to retire I should certainly not have withdrawn. I should have liked to have seen this election tested on two points pure and simple: (1) the midwifery question, and (2) general practitioner *v.* consultant

as representatives. This would have simplified matters in future if decisively settled this time.

I am, Sirs, yours faithfully,

Halifax, Sept. 29th, 1897. TH. M. DOLAN, M.D.

To the Editors of THE LANCET.

SIRS,—I enclose a copy of a letter I have just written to Sir Walter Foster regarding what I call the unscrupulous and unfair tactics adopted by him or his committee, or both, in the conduct of the present contest for a general practitioner's representative on the General Medical Council, which I will thank you to publish in your next Saturday's issue. I will not comment on the fact that the lay press has been induced to scatter broadcast a false and misleading statement in order to buttress Sir Walter's position, which after the ten years' faithful services he so modestly alludes to surely ought to have been able to speak for themselves. In bare justice to myself I ask you to insert these two letters.

I am, Sirs, yours faithfully,

Winckley-square, Preston, Sept. 29th, 1897. JAMES A. RIGBY.

[COPY.]

15, Winckley-square, Preston, Sept. 29th, 1897.

Sir Walter Foster, M.D., Birmingham.

SIR,—I have just received a circular letter of your address enclosing a preliminary list of your alleged nominators and supporters. I notice with extreme regret that this list is headed with the following extract from the *Birmingham Daily Post*:—

"General Medical Council Election.—Mr. George Jackson, F.R.C.S., of Plymouth, who was the candidate of the Incorporated Medical Practitioners' Association, has retired in favour of Sir Walter Foster. Mr. Jackson's retirement means a great accession of strength to Sir Walter Foster, who is now practically the only p ovincial candidate."

I presume this letter and the enclosure were issued with your knowledge and sanction, and as the statement that you are "now practically the only provincial candidate" is both false and misleading I call upon you to withdraw it immediately in the same public and effective manner in which you have circulated it—that is by circular. You must be aware that I am as well as yourself a provincial candidate, nominated and accepted, and that my address was issued before your own. I remain, Sir, your obedient servant,

JAMES A. RIGBY, M.D.

To the Editors of THE LANCET.

SIRS,—It is with great pleasure that I see the address of Mr. Victor Horsley, announcing himself as a candidate at this election, and I trust that we shall seize this opportunity of securing for ourselves a real representative. Anyone familiar with the affairs of the last few years knows that there is not in the profession a man with a wider knowledge of the difficulties, or a broader sympathy with the trials, of the general practitioner than those Mr. Horsley has manifested. It is no exaggeration to say that our requirements and aspirations are as familiar to Mr. Horsley as they are to any of ourselves, and it is quite certain that he knows better than many of us how the improvement we desire can most hopefully be attempted.

If we consider what are the qualities most necessary to a representative who shall do us justice, we must perceive that it is in the first place requisite that the representative should have a full, accurate, and minute knowledge of our case and position. It is next desirable that he should honestly intend to apply his knowledge wholly and solely in our interest. Then it is needful that he should possess the intellectual qualities, the experience and knowledge of affairs which are essential to carry out his intentions and to give him due weight at the General Medical Council. Some of the correspondents who have expressed their views on this subject appear to look for qualifications other than these. Some seem to regard the kind of practice done by the candidate a matter more important than the kind of representation we are likely to obtain. What we want is a man to represent general practitioners, not a general practitioner to represent us. This should be obvious to everyone. The fact that a candidate has or has not any particular degree or diploma, or that he sees chiefly any particular branch of practice, is totally insignificant. We want a man, not a description, and we want him badly. Other correspondents seem to attach importance to geographical distinctions, though it is hard to imagine wherein lies the virtue or the disadvantage of any particular locality. Others have their vision so obscured by some special object as to be totally blinded to every other consideration. We have had representatives who have worked hard for us and others who have not done what their opportunities led us to expect of them. Now that we have got a splendid candidate who, as we well know already, will grudge us neither time, nor labour, nor brains, we can surely unite to secure a representative possessing in an eminent degree all the qualities that we require. If we cannot avail ourselves of our opportunity we are indeed unable to help ourselves, undeserving of the aid of others.

I am, Sirs, yours faithfully,

HAMILTON HALL L.R.C.P.Lond., M.R.C.S.Eng.

Frant, Sussex, Sept. 28th, 1897.

To the Editors of THE LANCET.

SIRS,—I have, doubtless in common with the rest of the profession, received a copy of Sir Walter Foster's address as a candidate for the vacant seat on the General Medical Council. Sir Walter Foster's qualifications for the position are good, but in my eyes he is injured by those who prominently support him.

The question of the abuse existent in the out-patient departments of hospitals is a very acute one—one which concerns the general practitioner very deeply. It should certainly somehow—and soon—be brought within the range of the work of the General Medical Council. Is a candidate whose chairman of committee is Dr. Saundby likely to share this view? The corporations are decidedly over-represented on the Council. Is a candidate who is supported by the Presidents of the Royal College of Physicians of London and the Royal College of Surgeons of England certain to share *this* view? Lastly, a really good representative should know not only what are the real troubles of the profession, but what is the most practical way of relieving them. Will Dr. Rentoul's good word, which I observe Sir Walter Foster to possess, in any way guarantee to the profession that Sir Walter Foster is the owner of a definite policy?

I am, Sirs, yours faithfully,

Earl's-court, Sept. 29th, 1897. FRANK G. WALLACE, M.B.

*** We have received a great many letters on the importance of the impending election and the merits of the rival candidates for which we have been unable to find room. Some of the communications, moreover, lost their force by being signed only with a pseudonym.—ED. L.

"REFORM IN THE SPELLING OF THE MEDICAL VOCABULARY."

To the Editors of THE LANCET.

SIRS,—Which is best? To follow Dr. Gould's advice[1] in search of a "simpler spelling of medical terms" or to adhere to the old classical model? Who can follow or reconcile the barbarous discordances of English "as she is spoke" by cockneys, provincials, Americans, and other slaves of accidental training? It is more difficult to trace and understand these than it is to appeal to the classical standard of Greek etymology. Etymology speaks to all nations alike. It is the only constant and intelligible authority. In the evolution of science the need for a new word to express a new idea is continually arising. The scientist naturally turns to the Greek Lexicon for what he wants. Here the classical student finds at once a fair expression intelligible to those whom he addresses, no matter what their mother tongue may be. Greek is the mother tongue, indeed, the grandmother tongue, of the scientific student of every land. It is the common tongue which binds them together in the fraternity of knowledge.

If it be urged, as those who accept the cacophonic rule of Dr. Gould must do, that words adopted in the English language must be trimmed in accordance with the accidental current habits of pronunciation we are landed in endless confusion. As pronunciation changes spelling must change, and so the meaning of the word is an ever-shifting enigma. If it be urged that it is easier to understand English than Greek the obvious answer is that Greek is a fundamental factor in medical education. Hence scientific words drawn from the Greek convey at once a definite meaning. And there is the obvious danger of losing this meaning if we alter the spelling in senseless deference to the disciples of cacophony. Etymology speaks to all alike. It is the only constant, intelligent, and trustworthy guide.

I am, Sirs, yours faithfully,

Lyss, Sept. 27th, 1897. ROBERT BARNES.

To the Editors of THE LANCET.

SIRS,—In the interesting leading article in THE LANCET of Sept. 25th on "Reform in the Spelling of the Medical Vocabulary" the writer is guilty of one slip. He says: "'Empyema' is now never written 'empyæma.'" It never

[1] THE LANCET, Sept. 18th, 1897.

was so written. More than 400 years before Christ Hippocrates repeatedly wrote *ἐμπύημα, a gathering or suppuration*,[1] or *an abscess*, especially *an internal abscess*.[2] Nay, more, the Father of Medicine gives us the derivation of *ἐμπύημα*, for in "Prognostics," page 43, he uses the verb *ἐμπυέω*, which means *to have abscesses in the lungs*. This verb is, of course, in its turn derived from *πύον, discharge from a sore matter* (Latin *pus*).[3]

This very word empyema may serve to illustrate my opposition to Dr. George M. Gould's proposed reformation of English spelling. If his suggestions are adopted it will be next to impossible to trace the history of words and to recognise their hidden meaning. Changes in spelling have, of course, taken place in the past—one has only to read Trench's "English Past and Present" to become aware of this—nay, more, changes are taking place and will in the future take place. But this is being effected by what the writer in THE LANCET aptly calls "the ordinary evolution of language," when "the unconscious impulse of the English-speaking race tends in that direction."

I am, Sirs, yours faithfully,
JOHN WM. MOORE, M.D. Dub.,
Ex-Scholar, Trinity College, Dublin.

Fitzwilliam-square West, Dublin, Sept. 25th, 1897.

"AN IMPROVED ŒSOPHAGEAL PROBANG."

To the Editors of THE LANCET.

SIRS,—Looking over back numbers of THE LANCET I find an illustration in the issue of Sept. 18th of "an improved œsophageal probang," by Mr. C. J. Mayhew, and a letter from Dr. Sympson in THE LANCET of Sept. 25th claiming priority on the ground of publication of a similar instrument in January of the present year. But the second edition of my book, "The Throat and its Diseases," published so far back as June, 1887, contains an illustration, Fig. 101, page 142, of an instrument constructed to overcome both the difficulties it has occurred to these gentlemen to correct—viz., that of premature expansion of the ramoneur on insertion and the employment of but one hand; and both—as I venture to think—by a better mechanism. Moreover, my instrument is made in jointed form, so as to occupy less space in the pocket or instrument case, while the end, instead of being of sponge, is replaced by an aseptic metal point, which has the additional advantage of detecting any hard foreign body on percussion.

I am, Sirs, yours faithfully,
Mansfield-street, W., Sept. 27th, 1897. LENNOX BROWNE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Sept. 25th a correspondent asks leave "in fairness" to remind you that you published a notice of an œsophageal probang designed by him, which, he says, embodied the improvements claimed for mine. Does your correspondent consider it unfair of you to publish a notice of a probang which is entirely different, and which I consider simpler, in construction to his? I am unable to understand how the probang illustrated in THE LANCET of Jan. 9th this year is more easily opened and withdrawn with one hand than the old form of instrument.

Messrs. Mayer and Meltzer have informed me that some years ago they made for Mr. Lennox Browne a probang with catch which prevented opening during insertion, but it required the use of both hands to manipulate it.

I am, Sirs, yours faithfully,
King's College Hospital, London. C. J. MAYHEW.

*** Each inventor has aimed at obviating the same difficulty, but the mechanisms employed are entirely different.—ED. L.

THE BATTLE OF THE CLUBS: THE COVENTRY PROVIDENT DISPENSARY.

To the Editors of THE LANCET.

SIRS,—As secretary of the Coventry public medical service I have been requested to forward you a copy of a letter, dated Sept. 5th, 1897, to the medical staff of the Coventry Provident Dispensary, also a copy of the *Coventry Herald* for Sept. 4th, 1897. My committee feel that the reply of the Coventry Dispensary committee to the memorial of their medical staff was insulting, not only to that staff, but to the whole profession of medicine. In intimating to its medical staff "that if they were not satisfied with their position the dispensary would be quite prepared to get a medical staff exclusively for the institution," the committee were taking a low estimate of professional men in the town and elsewhere, and considering that the Coventry public medical service is open to the dispensary staff upon their resignation, and that ultimately their financial position will not be impaired, there seems to be no reason why they should not stand to the terms of their memorial. With a view of assisting them in such a course the following letter was addressed to them on Sept. 5th, and on the 25th last the enclosed reply was received.

I am, Sirs, yours faithfully,
EDWARD PHILLIPS.

Much Park-street, Coventry, Sept. 28th, 1897.

[COPY.]

20, Much Park-street, Coventry, Sept. 5th, 1897.

TO THE CHAIRMAN OF THE COVENTRY DISPENSARY MEDICAL STAFF.

DEAR SIR,—As secretary of the Public Medical Service I have been instructed to write to you to express the regret of my committee that you have failed in your efforts with the dispensary committee to carry out any of the reforms asked for in your memorial to them. If the report in the *Coventry Herald* of Sept. 3rd be a correct one my committee much regret that any body of professional men should be exposed to such an insult as the following paragraph would imply: "The present arrangement with regard to salaries the committee consider fair both in the interests of the patients and the medical staff, and they are not disposed to disturb it. The general feeling of the committee on the whole question is that if the medical staff are not satisfied with their position the dispensary would be quite prepared to get a medical staff exclusively for the institution, as is being done in some other towns, notably at Yarmouth."

Taking into consideration the verdicts already pronounced on your dispensary system by THE LANCET, the *British Medical Journal*, and the Ethical Committee of the British Medical Association, we are of opinion that there is nothing open to you but the resignation of your appointments. Supposing such a view were accepted by yourselves, and you were at once willing to resign your positions as members of the staff, it is our intention to cordially ask you to join the public medical service, and become members of a professional body which is able to control all contract work undertaken by its members.

We are anxious to assist you by this offer in resenting an insult which has been offered through you to the whole profession of medicine. I am, dear Sir, yours faithfully,
(Signed) EDWARD PHILLIPS.

[COPY.]

24, Bishop-street, Coventry, Sept. 25th, 1897.

DEAR SIR,—I beg to acknowledge the receipt of your letter of Sept. 6th. As negotiations are still pending between the staff and the committee of the dispensary I am instructed to say that we are unable to adopt your suggestions.

I am, dear Sir, yours faithfully,
(Signed) W. J. PICKUP,
Sec. Medical Staff of Coventry Provident Dispensary.

To Dr. Phillips.

"CONGENITAL ABSENCE OR DELAYED DEVELOPMENT OF THE PATELLA."

To the Editors of THE LANCET.

SIRS,—In connexion with Mr. Little's original article on Congenital Absence or Delayed Development of the Patella, published in THE LANCET of Sept. 25th, the following case, at present in the wards of the Manchester Children's Hospital, under the care of Mr. Wright, may possibly be of interest as illustrating the usual association of the above condition with other extensive congenital deformities. A girl, aged six years, was admitted to hospital on Aug. 7th; she was rather a delicate-looking child and of small build for her age. Both knees were in a position of hyper-extension of about 20°; both admitted of very slight flexion only—the right until the leg and thigh were in a straight line, the left to a further extent of 10°. The left also permitted a slight degree of lateral movement. The left joint line was perfectly horizontal, but owing to the abnormally large size of the inner condyle of the right femur the right joint line was somewhat oblique from within upwards and outwards, causing a slight appearance of genu valgum. On the right side no trace whatever of any patella could be found, and on the left all that apparently represented it was a fibro-cartilaginous nodule about the size of a pea situated in the quadriceps tendon one inch above the joint line. There was also very marked congenital dislocation of both hips, the femora being abnormally moveable on the pelvis, it

[1] Prognostics, page 41. [2] Epidemics, III., page 1059.
[3] The references are to the pages of the edition of Foesius, published at Frankfort in 1624. It lies before me as I write.

being possible to push the rudimentary femoral head to within half an inch of the anterior superior iliac spine. The right foot was in a position of marked talipes equino-varus, the left in that of severe calcaneo-valgus.

All these deformities were congenital, and yet in spite of their extent the child could walk about without assistance and had done so ever since the age of two years. The body-weight was transmitted to the ground through the outer border of the cuboid and anterior part of the os calcis in the right foot and the projecting head of the astragalus on the inner side of the left foot. The knees were held perfectly stiff, and the pelvis sank on the femora at each step, the characteristic waddle of congenital dislocation of the hip being extremely well marked; the abdomen was held prominently forward, and the shoulders thrown well back. On Aug. 17th the deformity of the feet was corrected by operation, Mr. Wright performing double astragalectomy. While the patient was under the anæsthetic forcible attempts were made to further flex the knees, but without avail.

I am, Sirs, yours faithfully,

ARTHUR H. BURGESS, M.Sc., M.B. Vict., M.R.C.S. Eng.,
House Surgeon, Manchester Children's Hospital, Pendlebury.

Sept. 27th, 1897.

INFECTION AND THE NOTIFICATION ACT.

To the Editors of THE LANCET.

SIRS,—Your annotation on "Infection and Parental Responsibility" in THE LANCET of Sept. 11th induces me to make a few remarks on a subject I have frequently ventilated and which has direct bearing on the above. Why do parents ignore the responsibility the above Act places on them? From many years' experience I have no hesitation in saying that it is not from ignorance, carelessness, or from a desire in all cases to even avoid the medical man's bill that they do not call in medical aid; but it is to avoid the loss of the wage-earning factors of the home that accompanies the consequence of notification.

The avoidance of the medical man's bill in mild cases is undoubtedly an inducement, but not in all, since a large number of juveniles of the artisan and other classes belong to clubs, and there would be no reason for not claiming the services of the medical officer which they were entitled to, particularly when in my experience a child aged six years drew 6*s.* a week when under the medical officer's care. The fact is that in most families of this class the elder children bring in several shillings a week by doing odd jobs out of school hours—boot-cleaning, butcher's errand boys; and, in fact, in many cases are employed to take out the medical officer's medicines. The mother, too, goes charing or takes in washing, and all these sources of income are cut off the moment the medical officer appears and notifies. Further, the husband, perhaps a baker or a milkman, must either give up work or leave his house for some weeks in cases of some diseases. If these restrictions were not enforced the Act would be useless. I confess I have ever found parents willing to carry out advice and instructions, but they have clearly stated the grievance they considered they had. And I must say, on looking over a record of some years, I find that since the Act was adopted in the majority of scarlet fever cases I was only called in to the more serious at the commencement, and in most when some sequelæ of the disease were manifest, the usual being nephritis and dropsy. Then all came out, with such remarks as, "Yes, the child did complain of sore-throat, was sick, and the neighbour's children are ill, but I never saw any rash, and did not think it could be scarlet fever. I have seen no peeling," &c. In some cases even when pointing out that the latter symptom was present in addition to the nephritis which had alarmed them they would not believe the child had the fever. I believe this experience will be found to be not uncommon. But I have constantly, realising the hardship to the poor in such cases, asked if it could not be remedied.

Section 9 of the Notification Act says: "Any expense incurred by a local authority in the execution of this Act shall be paid as part of the expenses of such authority in the execution of the Acts relating to Public Health, and in the case of rural authorities shall be general expenses." The Infectious Diseases (Prevention) Act, Section 20, provides for any expense incurred, including reasonable remuneration of any veterinary surgeon employed under Section 4, and as "part of the expenses of such authority," &c. (same as above), and Section 6 provides for the free disinfection of bedding, &c., at the expense of the authorities, as also for *compensation* to the *owner* when *damage* (loss) is sustained.

Now, Sirs, why should not the poor be compensated for in many cases the serious loss they suffer in carrying out the necessary isolation of the whole family? I feel sure that the only way to reap the full benefit of these Acts is to do so, and I have no hesitation in saying that if it were done parents would be as willing to help medical men, instead of as now thwarting them, in stamping out these infectious diseases as we are ourselves. Moreover, penalties for infringement of the Act could be rigidly inflicted, as all sentimental grounds for leniency would be removed by knowing that the parent suffered no loss from carrying out the Act. Under the head of "general expenses" and "as part of the expenses of such authority in the execution of the Acts relating to public health" I submit that local authorities have the requisite power to make good the few shillings' loss sustained by the enforced idleness of the mother and healthy children. "The execution of the Acts" surely means the *efficient* execution, and if, as I assert, the efficient working of the Act can only be obtained by removing all cause for concealing facts on the part of the public by making good the loss, it is a rightful and legal charge as the "general expenses."

I am, Sirs, yours faithfully,

ELLIOT DAUNT, M.R.C.S. Eng., L.R.C.P. Lond., D.P.H.

Sept. 20th, 1897.

"IMMORALITY AMONG SCHOOL BOYS."

To the Editors of THE LANCET.

SIRS,—Dr. Hime's article in THE LANCET of Sept. 4th is necessarily helpful. The question of immorality amongst boys is one which requires bold yet careful handling. It is a matter, as he points out, that must be attacked alike by the medical man, the parent, and the schoolmaster. Dr. Hime, I take it, is thinking simply of masturbation. Everything that he advocates for the suppression of the evil is excellent, nothing, perhaps, that he says being of such importance as the insistance of all boys entering thoroughly into the school games and sports. He says nothing about diet. The principal meals should be breakfast and midday dinner. Eggs and so forth may also be allowed for tea, but supper should be quite a light meal, a glass of milk or cocoa with bread and butter or biscuits being quite sufficient. No healthy boy requires alcohol, but when it is allowed it should be consumed only at the midday meal. Masturbation is looked upon as "a solitary vice." It is not always so; the worst examples of it are those where boys openly masturbate themselves before their fellows, or even stimulate the passions of others by, so to speak, masturbating their comrades. Undoubtedly these are the boys that do the greatest amount of harm, and who deserve the severest form of punishment for their misdeeds. Perhaps I am trespassing too much upon the schoolmaster's domain when I suggest that even these boys should not be expelled offhand. They would undoubtedly deserve a sound thrashing, and the reasons for which they have been punished should be known throughout the school. Any head-master would, I am sure, follow the punishment with kind but severely applied advice.

I have had, of course, to talk to boys upon this subject, and I never fail to try to impress them with the "beastliness" of the habit. I tell them that we kick a dog if we catch him doing the same thing—kick him and call him a dirty brute. Solitary masturbation needs a more kindly way of treatment. Here, at least, the boy has some conscience; he is ashamed of what he is doing and does it on the sly, and very frequently is quite unaware of the harm that he is doing to himself. That this particular form of the vice requires kind as well as firm treatment is evidenced by such facts as these—that I have spoken with schoolmasters and athletes of large repute, who have owned to me that in their younger days they had yielded to the temptation. Warned in time, however, they gave up the habit. It should ever be borne in mind when dealing out punishment for this offence that, after all, the offenders are only gratifying one of the strongest impulses of nature at an age when natural desire powerfully asserts itself. Boys, we must also remember, are not the only offenders; girls, men, and women are by no means always saints in this respect. Yet, remembering all this, and weighing well the strength of passion and the weakness of poor humanity, the offence has to be controlled, nay, has to be prevented. *A repetition* of open beastliness after due punishment and warning can only be further dealt with

in the case of the schoolboy by immediate expulsion. The medical man should make a most careful local examination in every case—I mean that he should carefully examine for any local cause that might be a predisposing reason for the commencement of the habit. Many local causes of irritation at once suggest themselves.

In my opinion, a carefully written pamphlet should be put into the hands of every public school boy. The bad moral effects of the habit, and its absolutely "beastly" nature, should be carefully pointed out. Such an attempt has already been made, but I think the statement of the facts should be even more plainly put down, and how to avoid temptation should be set forth with no mincing words. The great objection brought forward to such a scheme is that by its means every boy will be told of the existence of the evil when he might have altogether missed such pernicious knowledge. That is nonsense; every boy will know something about it sooner or later, and to be forewarned is to be armed for resistance. I am drawing up the draft of such a pamphlet, and shall submit it to the criticism of both headmasters and medical men, and if I am sufficiently supported shall publish it for the purpose of being distributed in the public schools.—I am, Sirs, your obedient servant,

"THE MEDICAL OFFICER TO A PUBLIC SCHOOL."

Sept. 20th.

THE COMPARATIVELY STATIONARY DEATH-RATE IN PRIVATE OBSTETRIC PRACTICE.

To the Editors of THE LANCET.

SIRS,—I have been much amused by an incident which has just occurred to me in the ordinary run of practice, but I venture to think that the amusement is so blended with instruction that it is not impossible that you may consider an account of it worthy of a place in the columns of THE LANCET. There could be no more forcible example of the ignorant empiricism which obtains even in the metropolis of the world, and of the fatally irreparable consequences which necessarily follow upon medical practice which is subservient to it. Some time ago I enjoyed the pleasure and privilege of a prolonged residence in the Rotunda Hospital, the practice of which I do not hesitate to say constitutes both the most carefully carried out example and the most brilliant result of the principles of asepsis which has yet been shown anywhere. Upon taking up my residence there, whilst admiring the training involved in the perfect attention to details, my mental attitude towards the practical good gained was inclined to a little benevolent scepticism. However, the practical results constantly brought under one's notice during the brilliant mastership of Dr. Smyly, and which now continue under Dr. Purefoy, were, and are, so striking as to convert the most unbelieving; and I never knew anyone during my term of residence there who did not enthusiastically admit this. Those who have been in actual practice since the pre-asepsis period, and who are conversant only with the well-known fact that the rate of mortality in private obstetric practice has not decreased in anything like the same ratio as that of the great maternity hospitals, cannot do better than consult the table given in Dr. Jellett's "Short Practice of Midwifery" of the cases treated at the Rotunda Hospital during the seven years of Dr. Smyly's mastership, which in the last year reached the astonishing minimum of 0·06 per cent. In producing this result few things were more important than the precautions taken in making, and the reduction in the number allowed of, vaginal examinations; and by way of impressing this in his clinical teaching Dr. Smyly had a well-known saying that "he hoped to live to see the day when a vaginal examination would be looked upon in much the same light as turning—a serious operation in midwifery." One does not require much experience of the exigencies of general practice before recognising that literally this is impracticable in every-day work; but for my own part I try to keep it before me as the (unattainable) ideal. Last month I attended a primipara who had a moderately long, but in every way satisfactory, labour. She had as "acting nurse" an individual who seemed to be a kind of general charwoman, and whose previous attendances at labour cases had been, according to her own account, very limited indeed, and whose general demeanour corroborated this. I was called to the case in the middle of the day, but there was then no sign of dilatation of the os. I called again during the early part of the afternoon, but found no progress. About six o'clock in the evening I received an urgent message from the "nurse" to say that the expected event was coming off immediately, and the terms of the message were so imperative that I rose from my half-finished dinner and went immediately through a heavy shower of rain. Upon my arrival I found the patient in practically the same state as when I had last seen her and labour not a bit further advanced, but in order to satisfy her I stayed for about an hour. I then went to fulfil some other engagements, and got back to see her again about eleven o'clock, at which time I found matters at a standstill. I again stayed for about a couple of hours, but seeing that it was the usual prolonged first stage of a primipara I administered two drachms of syrup of chloral and went home to get some sleep, leaving instructions with the "nurse" that I was to be sent for if required. I did not receive any message, so I went to see her again after breakfast and found her in much the same state as on the previous evening. I called again about two o'clock with the same result. Finally, I was sent for about four o'clock, and finding that at last labour was progressing I remained with the patient in the usual way and the infant was born about half-past six in the evening. Everything terminated satisfactorily, and I thought no more about the case after the end of the usual period of visiting, and the patient and her friends were apparently very well satisfied. Yesterday, however, I called to see a medical friend who practises in the same neighbourhood, and he told me the story which is the gist of this communication. He said that a week or two ago he was attending a confinement when the same individual was again acting as nurse in the same *dilettante* kind of way to another friend of her own. This Betsy Prig inveighed mightily against me, and her two weighty reasons for asserting that I "knew nothing about midwifery, and probably had never seen a case before," were (1) that I was too particular and over fastidious about scrubbing and washing my hands before making an examination; and (2) that I did not make a sufficient number of examinations and "help" the patient (oh! shade of Dr. Smyly! I made at least two vaginal examinations *during each visit* which I have related).

My friend tells me that this good woman is emphatic in her declamations that never again shall I be permitted to attend any woman she can influence. Circumstances, however, make this threat of hers quite inoperative, but if I had been permanently in the neighbourhood it might have been quite a serious matter for my reputation to have this criticism of incompetence spread about. As it is, I think it is worth while recording as an example of the never-ceasing risks attending the conscientious practice of the profession. Few things are from their nature more pathetic than death in child-bed, and anyone who has ever seen such devoutly hopes he may never see another, and with this object will spare no pains to diminish the inevitable risk. Still, if a man stands to lose his reputation because by scrubbing his hands he seems fastidious about being brought into contact with the patient, or by reason of abstaining from unnecessary vaginal examinations he is accused of not sufficiently "helping" the patient, what course can he be expected to adopt? With so-called "nurses," and by more than parity of reasoning their patients on such friendly terms with the streptococci, can the notorious fact to which I have referred, the comparatively unaltered death-rate in private obstetric practice, be at all a matter of surprise? In fact, it is inevitable.

I am, Sirs, yours faithfully,

London, Sept. 22nd, 1897. M.D.

THE GUILD OF ST. LUKE.—The Medical Service held last year at St. Paul's Cathedral under the auspices of the Guild of St. Luke was so much appreciated that it has been decided to hold a similar one this year on Oct. 19th at 7.30 P.M., when the Archbishop of York will preach the sermon. On account of the large attendance last year it has been found necessary to limit the number of tickets. Invitations will be issued to all practitioners of medicine resident in London and those who are graduates are asked to wear academical costume—that is to say, the gown and hood of their degree, whether medical or otherwise. Practitioners residing in the provinces who wish to attend can obtain tickets on application to either of the honorary secretaries, Dr. S Russell Wells, 24, Somerset-street, Portman-square, W., or Mr. C. Devereux Marshall, 10, Devonshire-street, Portland-place, W.

THE EPIDEMIC OF TYPHOID FEVER AT MAIDSTONE.

(BY OUR SPECIAL SANITARY COMMISSIONER.)

THE serious and startling character of the typhoid fever epidemic at Maidstone involves so many issues and problems that it is yet too early to express a definite opinion or formulate accusations. One thing only can be said with the conviction that future investigations will not disprove the assertion. The water-supply has undoubtedly been the spark which has ignited the powder. It would, however, be imprudent at this early stage to conclude that the water-supply constitutes at once both the spark and the powder which has produced the explosion. Considering that in this small town, with only some 33,000 inhabitants, there have already been more than 900 cases, it seems certain that other causes besides the water-supply must have contributed to bring about this dire result. Under the present circumstances it will be fortunate, indeed, if ultimately the number of cases does not exceed 1000 and reach 3 per cent. of the population. With such figures before us it is difficult to believe that the water is alone to blame. There must have been predisposing causes of a very active character, and therefore it is only right to insist, and this at once, that other reforms besides an improved water-supply are needed. Nor is it necessary for the moment to say much in support of this opinion: it will suffice to observe that in Maidstone many closets, though draining into sewers, have no flushing apparatus, but depend for their cleanliness solely on the water that may be brought to them in buckets by the inhabitants. What this is likely to mean in actual practice anyone with a little experience in such matters will fully appreciate. Having said this much and made these reservations with a view to future criticisms and elaboration of details we must for the moment content ourselves with giving a short history of the epidemic and some account of the much-abused water-supply.

THE HISTORY AND PROGRESS OF THE EPIDEMIC.

During the course of the month of August the medical officer of health, Mr. Adams, became aware that there was an unusual prevalence of diarrhœa in the borough. Though an increase of this disease is to be expected at that time of the year, he was startled on preparing his monthly report to find that during the four weeks ending Sept. 4th there had been 19 deaths from diarrhœa. The local board meeting was to take place on Sept. 15th, and on the 12th six cases of typhoid fever were notified to the medical officer of health. Another case was notified on the 13th, three on the 14th, and one more on the 15th, when the board met. The medical officer at once drew up a handbill setting forth the precautions that were to be taken to prevent diarrhœa and enteric fever, urging the necessity of boiling the milk, drinking water, &c., of reporting any case of faulty drainage, and of abating all nuisances. With commendable promptitude these instructions were printed and circulated broadcast within a few hours of their approval by the board. In the interval the medical officer of health had naturally suspected the milk-supply and had undertaken an investigation on the subject. This was no easy matter, for though the general sources from which the milk-supply is derived were known, still they varied in detail. Many purveyors obtain their milk from large dairies, and the milk does not always come from exactly the same place, so that it took some time to unravel this matter. The medical officer did not yet suspect the water-supply, but he feared that it might become contaminated in consequence of the number of cases of typhoid fever in the neighbourhood. It was therefore more for the purpose of protecting than of denouncing the water that he went up immediately to London to submit samples to Dr. Washbourn for bacteriological examination. But when, on Sept. 16th, no less than 27 new cases of typhoid fever were notified he began to suspect that the water was the real cause. By the 16th there had been in all 38 cases of typhoid fever in the borough. This number was already sufficient to begin to localise the disease and to observe that certain quarters of the town were more affected than others. But as on the morrow, Sept. 17th, 26 other cases were notified, and on the 18th 66 more cases were reported, not only was the gravity of the epidemic self-evident, but the map on which these cases were dotted down clearly showed that the epidemic was connected with what is known as the Farleigh water-supply and not with the other sources of supply. This was all the more evident as the Farleigh water is delivered, not to one district, but to three districts which are widely separated from each other. It was in the north-east, in the south-east, and the western quarters of the town that the epidemic prevailed. A case in the centre quarter of the town which separates these districts one from the other only served to confirm this theory. The case was that of a servant who was employed in King-street—a thoroughfare which is situated in the central district. Though she had typhoid fever no other inhabitant of the house in King-street suffered from that disease. But it was ascertained that this servant had previously been home to her parents from Saturday to Sunday, where she had drunk some water. Her parents live in Gladstone-road, which is situated in the north-easterly district, and which receives the Farleigh water-supply. By Sept. 18th the evidence was sufficiently emphatic to enable the medical officer of health to approach the water company and insist on a full investigation. This was commenced on 19th, and on that day no less than 76 more cases of typhoid fever were notified, while on the next day, the 20th, there was a further and most alarming increase of 129 new cases. Such figures show only too well the utter impossibility of attempting to overtake the evil when once it has been allowed to occur. In such cases prevention is the only safeguard.

BAD WATER: THE TUTSHAMS AND THE HOPPERS.

The Farleigh water-supply is collected from three separate gathering grounds and springs. The farthest of these gathering grounds is near Ewell House and some four and a half miles from Maidstone. Nothing has yet been ascertained concerning this supply beyond the all-important fact, that a junction is effected between the pipe that brings the water from the Ewell district and that which brings the water from the second or Tutsham gathering grounds. This latter ground is divided into two districts, Tutsham-in-Fields and Tutsham-in-Orchard. In the former district the water is collected by means of draining-pipes which are sunk in the subsoil. This soil is composed of the rag or lower greensand formation. The pipes were laid some thirty years ago, and who shall say how or where? Some are supposed to be twenty feet down in the soil, others are known to be only seven feet below the surface, and perhaps some pipes are still nearer to the surface. Apertures are, of course, contrived so that the pipes shall receive and convey away the water that is in the soil above them, and this earth is planted with hops. Of course the hops have to be manured, and much has been said concerning the obnoxious character of this manure. Fish, rape dust from oil mills, and shoddy are employed. But all this is placed on the soil in the month of January, and if the manure had been the cause the epidemic should have broken out earlier. When we examine the position of the collecting tank into which the water from these pipes is delivered we find a more likely explanation. This tank or catch-pit is covered over with two large slabs of Yorkshire flagstone and a little earth. This is not a sufficient impediment to prevent a direct percolation into the tank. There is but a small yield of water in this tank and it is very turbid. But the situation of the tank itself is far more suggestive. It is close to a long hedge. On either side of the tank there is a vacant space which is utilised as a camping ground. Here gipsy vans and other vans are stationed at certain periods of the year. On the other side of the hedge there was a great accumulation of fæcal matter, this being a convenient retreat for the hop-pickers and others who work in the neighbourhood. From the collecting tank which is so dangerously close to this foul hedge a pipe conveys the water in front of a row of eight cottages that are close at hand. These are known as the Mill Cottages. They derive their water-supply from this pipe. It is brought behind the cottages by a branch pipe and there affixed to a pump. The inhabitants of the Mill Cottages are therefore not only the first to drink the water from the Tutsham gathering tanks, but they drink this water undiluted by mixture with water from other gathering grounds. The medical officer of health therefore made a careful inquiry as to the health of all the inhabitants of these cottages. The inhabitant of the first cottage keeps a small huckster's

shop, and she declared that the whole of her family and herself had been very ill with diarrhœa; but, what was more remarkable, it appeared that the hop- and fruit-pickers who worked in the neighbourhood had also suffered extensively, for they constantly came to her shop to buy a diarrhœa mixture. Further, this woman had heard that a child had died from fever and diarrhœa in one of the hop-picker's huts. In the next cottage the whole family had suffered more or less from diarrhœa, and confirmed the story of the death of the child. At the third cottage both mother and son suffered from attacks of diarrhœa about three weeks or a month previous to Sept. 19th, when the epidemic at Maidstone had assumed such serious proportions. In the next cottage a man had been on his club and suffered from diarrhœa in the months of July and August. In another cottage a woman remarked that the hop-pickers came on Aug. 20th, and her baby was very ill on the 24th. In two other cottages the inhabitants had also been very ill with diarrhœa, and the baby belonging to a friend who had paid them a visit suffered in the same manner.

A second gathering tank or catch-pit at Tutsham is known as Tutsham-in-Orchard. It has an overflow pipe which feeds a watercress bed. On the other side there is a blacksmith's shop where there is a privy, which might also be the cause of mischief, and there is the general consideration that the whole district is overrun with hop- and fruit-pickers.

THE FARLEIGH MAIN.—THE DISUSED FILTER-BEDS.

Thus we have seen that the Farleigh water-supply is derived first from the catch-pits in the Ewell district. The pipe from this district is joined just below the mill cottages by a pipe from the Tutsham-in-Fields and Tutsham-in-Orchard district. The pipe, or main as it may be called, now approaches the River Medway and passes underneath it by means of a syphon. It then runs along the side of the South-Eastern Railway line; and on the other side of this line there is another gathering ground known as the Barming sources. The water is here derived from ragstone beds at their juncture with the Atherfield clay. The catch-pits are placed on a parallel with the railway line on the north side between the railway embankment and a hedge. The gathering grounds are beyond the hedge and are covered with orchards. The water is brought to the catch-pits by iron pipes, loosely jointed so that the water may enter between the joints. The catch-pits are made of concrete and bricks set in cement. The manholes are well protected with cement and keyed down. That such precaution is necessary is shown by the fact that a few years ago platelayers and other labourers employed on the railway line used to unlock and lift up the covers so as to take water out of the catch-pits. The pipes that gather the water have not been touched for something like thirty years, but as they are situated at least a quarter of a mile from any houses or barns they can only be contaminated by the manure in the orchards or by the fruit-pickers and others who work on the spot. Then it has still to be shown whether such contamination would not be nitrified before it reached the level of the pipes. From the catch-pits iron pipes pass under the railway line at a depth of about seven feet and join the delivery main which has brought from the other side of the river the waters from the Ewell and Tutsham districts. This main, which has now united and so mixed together the three sources of supply, continues between the railway line and the river till the Farleigh station collecting tanks are reached. There is no evidence as yet that the last of the three gathering fields has yielded polluted water. The eastern catch-pits do not receive much water. In the opposite direction those known as the Church springs have a good yield; they are supplied by pipes that have been laid more recently, about fifteen years ago. They are considered more satisfactory, and the water comes from a steep bank of ragstone. But some of the catch-pits near the railway line and the orchards have a few cracks in the cement and might be polluted by water soiled with excremental matter due to the occasional presence of fruit-pickers. This is not considered probable, but it is possible. On the other hand, it is not thought possible that the Medway, even at flood-tide, could have any effect on the water. However this may be, the water, as already described, is mixed in the main with that which comes from Tutsham-in-Fields, and there can be but little doubt as to the pollution of the latter.

Close to the large collecting tanks, where the water from the three gathering grounds is brought by the delivery main, there are two filter-beds, consisting of two feet of sand and one of pea gravel. These filter-beds should have saved the town, but it appears that they were not in use. One of the filter-beds is of recent structure and the other is dry. When they were used they were frequently cleaned, but the cleansing has nothing to do with the present epidemic, for of late the filters have not been used at all. It was thought that the pipes connecting the filter-beds and the pumping station were liable to pollution from the river, and the culvert was supposed to be in an unsafe condition. Therefore the water was brought from the collecting tanks by a pipe placed outside the filtering beds straight to the pumping stations. From here the water is pumped along a rising main to what is known as the Barming Reservoir. From this point the water can be supplied by gravitation to the greater part of the town. When the Barming Reservoir is full a valve is shut and the water by another pipe reaches the Asylum Reservoir, which is situated at a still greater altitude and supplies the highest parts of the town. The reservoirs were cleaned out fifteen months ago. The delivery service is under pressure and through a 12-in. iron main. From these two reservoirs the north-east, the south-east, and western districts of the town have been daily provided with unfiltered water composed in part of the water gathered at Tutsham-in-Fields, which some three to four weeks before the outbreak of the epidemic caused all the inhabitants of the Mill Cottages at Tutsham to suffer from diarrhœa.

THERE IS GOOD WATER ALSO.

The central portion of the town most fortunately enjoys a totally different supply. In fact, there are three different supplies for the centre of Maidstone. The first is called the Broadley springs. They are reached by a heading into the chalk some three miles from the town and to the village of Boxley. The second supply comes from the Cassington springs and consists of chalk waters gathered in the Cassington woods. The springs are at some distance from the town and at the foot of the North Downs. The third is termed the Conduit supply, and comes from high grounds within the town. It is not connected with the Maidstone Waterworks Company. About twelve months ago the medical officer of health found by chemical analysis that this water was accidentally polluted. The source of pollution was subsequently discovered and stopped, so that there is now no special reason to believe that this water has had any evil influence on the present epidemic.

All these facts, though very significant, are not so conclusive as the distribution of the disease itself. Taking the figures as they stood on Tuesday evening 319 cases of typhoid fever had been notified from the north-eastern part of the town which receives the Farleigh water-supply. From the south-eastern district, where the same water is drunk, there were 111 cases. Finally, in the western district, which is also dependent on the Farleigh water, there were 392 cases of fever. On the other hand, in the centre of the town, where the Boxley, Cassington, and Conduit waters are distributed, there were only 24 cases. This contrast is all the more remarkable as the population is much more dense in the central than in the other districts of Maidstone.

THE FIGHT AGAINST THE EPIDEMIC.

Considering the rapidity with which the epidemic has spread and the trouble and sudden strain upon the authorities there has not been much time for investigating the causes. The most urgent matter at present is to deal with the evil itself, and for this purpose the hospital accommodation has proved altogether insufficient. Maidstone boasts of being a pioneer town in the creating of an infectious diseases hospital, and one wing of the fever hospital was at once set aside for the typhoid cases. This contains twelve beds. On Sept. 21st a system of district nursing was organised, and a number of trained nurses brought down from London. There were then thirty-six nurses in Maidstone, but so many more have come since then that the medical officer frankly confessed he had lost the record. In the streets nurses are seen hurrying to and fro in all directions, and seem as numerous as the soldiers in a German town. On Sept. 24th an emergency hospital was opened near the Chatham and Dover Railway Station which contains thirty beds. The hall of the Salvation Army is now being hastily fitted up with forty beds and will soon be available. But so widespread is the epidemic that all this is still insufficient. Special care has

been taken to flush the sewers, and the sanitary authorities have themselves flushed all the house drains where there are cases of typhoid fever; but there will have to be a big fight by-and-by between the authorities and the householders to compel the latter to put their drains in order.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Mason College.

THE winter session of Mason College is to be opened on Oct. 1st, on which occasion an address will be delivered by Sir J. Crichton-Browne. It is expected that a large audience will avail themselves of the opportunity of being present. The conversazione of the evening allows the meeting of old friends and students, the seeing and hearing of new things, in addition to other Athenian attributes. Hitherto similar occasions have always been most successful. The Faculties of Arts and Sciences hold their inaugural meeting on Sept. 30th.

Knowledge is Power.

Happening to be passing through the surgical casualty room of a large hospital in the town the house surgeon pointed out to me a case of somewhat trivial injury he had just attended. The patient on entering the room displayed prominently his badge of the Ambulance Cross, and in answer to inquiry as to what was the matter said it was an accident—"I have met with an abrasion of the epidermis." No wonder the house surgeon was taken aback and that the patients around looked with awe upon the latest comer, who could state his own case in such profound terms.

A Large Order.

At a recent inquest the city coroner, Mr. I. Bradley, commenting upon the insanitary condition of certain courts, remarked that one-fourth of Birmingham ought to be demolished. No doubt the state of certain areas is as bad as can be, and that they are highly unsuitable as dwellings for human beings no intelligent person would deny. But are we worse than other large towns? And if these dilapidated tenements are pulled down, will not the poor and the vicious flock to other quarters and continue the same habits?

The Meeting at Montreal.

Birmingham was well represented at the meeting of the British Medical Association at Montreal. Honours were distributed sparingly to those of the administrative body, an honorary D.C.L. falling to Dr. Saundby as president of the council. Those who have returned safely express different opinions as to the effect of so long a journey. "Never again," is the remark of a veteran practitioner, while others who have braved the perils of the sea without its accompanying sickness express their appreciation of the hospitality and friendliness of their reception.

Sept. 28th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Chat Moss.

THIS estate of 2600 acres was purchased by the Manchester City Council in August, 1895, at a cost, including legal expenses, of £139,350. At that time almost the whole of it was held by various persons on leases which only expired last February, so that the Health Committee, for whose requirements it was bought, can only be said to have had possession for about six months. The original ninety years leaseholders drained a large part of the moss, and 1900 acres are already under cultivation; 400 acres, really outside the moss, have long been in agricultural use, and there are only about 200 acres of wild moss still left in their natural condition. Some portions have been planted and form good pheasant cover. Manchester was fortunate in being able to obtain this large area of land for the disposal of its many thousands of tons of garbage and night-soil. Carrington Moss of 1100 acres is still available for about twenty tons per acre annually, but from a return prepared in 1893 more than 315,000 tons have to be dealt with, so that enough is left for Chat Moss, which it is calculated can take thirty tons per acre for a long time to come. The extent of the latter moss can perhaps be more easily realised by stating that it is 3½ miles long by 2¼ broad than by merely giving the number of acres. Its eastern boundary is 5½ miles from the Manchester Exchange. The carriage and distribution of heavy and cumbrous material such as night-soil are serious considerations, but fortunately the Ship Canal is easily available for the purpose, and barges or steamers can be sent direct from the corporation yard in Manchester to the wharf near the edge of the moss. From this point a light railway will be constructed to the moss, and branches will run to different points as required. It is said that the entire outlay on the 2600 acres will scarcely reach £200,000. Manure will be laid down practically at the field gates at a cost to the farmer of about 1*s.* 3*d.* a ton. The carriage will cost about 1*s.*, so that the city will receive 3*d.* a ton for ridding itself of a nuisance which at Chat Moss is a valuable manure. These changes are eagerly looked forward to by the smaller farmers, who already produce immense quantities of vegetable produce of all kinds. When the light railway is completed 50,000 tons may be put on the land every year. The spongy, shifting moss has a depth in places of more than 30 feet, but in some parts, where it is shallower, cottages—or rather shanties of wood planked together—have been built. The sinking of the moss has curiously twisted them; here and there the floors have disappeared, and in some instances the conditions as to sanitation are deplorable. New houses and cottages are being built. Creasoted baulks of timber are laid transversely on the face of the moss as a foundation. Above these a stout beam of oak is laid lengthwise and on this the brickwork is raised. Pipes connected with the Manchester water-supply have been laid, so that the use of the bog water is no longer a necessity. It is believed with good reason that the purchase of Chat Moss will be a pecuniary and sanitary success which will contrast favourably with the culvert scheme.

Evening Continuation Schools.

A resolution was passed at the last meeting of the Manchester School Board appointing a sub-committee to consider the question of special instruction for the large number of dull and defective children to be found in Manchester. In the course of the discussion an important matter was brought up, the attendance of day scholars at night schools. In a recent speech the deputy-chairman, Mr. E. J. Broadfield, stated that "another more recent concession was the permission for pupils in the higher grades of the day-schools to earn more grants in the night-schools." This idea that the children are to be used as grant-earning machines for the schools will not appeal to our sense of the purposes of education. The Rev. Canon Nunn said that last year the number of day scholars on the books of the evening schools was 3731. They attended school three times a day, which, he contended, was bad for them. Beyond the injury to the children themselves there was the over-pressure to the teachers. He knew of one case where a child was attacked with epilepsy, and was told such cases were on the increase. In a letter to the papers he corrected this statement, the case being one of chorea, not epilepsy. Dr. Woodcock contended that there was no evidence of any injury to the children. In a letter to the *Courier* endorsing the Rev. Canon Nunn's views Mr. T. Gavan Duffy gives one instance of which he had personal knowledge, in which a bright boy attended a board school where, "in addition to the essentials of elementary education, they crammed him with algebra, mensuration, French and German, the theory of sound, light, and heat, and magnetism and electricity. After school hours he was compelled to spend an hour and a half every evening practising on a piano, and at night he attended (in the winter) a shorthand class in connexion with the evening continuation schools." This brilliant boy, he says, "is now at the age of fifteen an imbecile," and no great wonder. It is probable that when we consider the ill-developed physique and want of stamina of the major part of the population of our crowded manufacturing towns most of us will agree that day scholars will get more harm than good from attendance at night schools.

Juvenile Street Hawking.

All will agree with a resolution that the question of juvenile hawking should be brought to the notice of the Parliamentary Committee of the City Council, which was

proposed by Dr. Woodcock, seconded by the Rev. Canon Nunn, and carried unanimously.

The Owens College.

Dr. Arthur Harden, one or the Senior Demonstrators in Chemistry at the Owens College, has been appointed Lecturer in Chemistry at the British Institute of Preventive Medicine, London.

Meeting of Ratepayers on the Culvert Scheme.

Since writing of the meeting of the City Council, when the culvert scheme was adopted by a large majority of those present, but, however, not a majority of the whole council, a meeting of ratepayers has rejected the scheme by a large vote. In consequence of this the Lord Mayor, as chairman, formally demanded a poll of the citizens, which will take place towards the end of October. It is not certain, therefore, that the matter will be brought up again, as was intended, at the meeting of the council to be held to-morrow.

Sept. 28th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Unrestricted Sale of Opium by Druggists.

AT an inquest held in Dublin on the 27th ult. the city coroner made some strong remarks as to the present state of the law in reference to the sale of poisons such as laudanum. He considered, as he stated, that the practice of selling opium to any person without a physician's or surgeon's prescription was an exceedingly objectionable one and ought to be discontinued. It was stated at the inquest that the deceased, an old man, had asked at a druggist's shop for fourpennyworth of laudanum. He was supplied with five drachms of the drug, which he swallowed with fatal result. The coroner of Belfast had occasion some months ago to express similar strong strictures on the same subject in the case of a man who purchased sixpennyworth of laudanum at a druggist's and who was found dead in a carriage of the Belfast and Northern Counties Railway. In the instance of a man who was recently indicted in Dublin for having attempted to commit suicide, it appeared that the accused had bought an ounce of laudanum and was about to swallow it when he was forcibly prevented. Mr. M. J. O'Connell, pharmaceutical chemist, deposed that the full contents of the bottle if swallowed would probably have proved fatal. Mr. Justice O'Brien inquired whether there was no restraint on the sale of this kind of deadly poison, but was told that "it was not exactly a deadly poison." The information seemed to rather surprise the learned judge, who probably thought that laudanum had a sufficiently deadly reputation to fully justify his epithet.

New Regulations for Examination by the Apothecaries' Hall, Ireland.

The examinations in medicine, surgery, midwifery, and pharmacy under the new regulations have been announced to commence on Oct. 12th at the Apothecaries' Hall, Mary-street, Dublin.

The Royal Victoria Hospital, Belfast.

At a special meeting of the life governors and board of management of the Royal Hospital, held on Sept. 16th, the following resolution, as suggested by the "Relations Committee" of the new Royal Victoria Hospital, was passed by a majority: "That the board of management of the new Royal Victoria Hospital shall consist of the president, secretary, treasurer, and five members of the medical and surgical staff to be annually elected by the visiting staff; fifteen life governors, of whom three shall, if possible, be ladies; and fifteen governors, as hereinbefore defined, of whom three shall, if possible, be ladies; and that the said fifteen life governors and fifteen governors shall be elected on the said board by the said general committee." In order to render this resolution operative it is necessary to obtain the consent of each of the life governors (all of whom are *ipso facto* members of the board of management of the Royal Hospital), and a circular has just been issued to each of the life governors enclosing a form of assent for signature. The reasons which led the meeting to adopt this resolution are as follows: the number of life governors of the Royal Hospital is about 250, while at the same rate of qualification (viz., a minimum donation of £50) the number of subscribers to the Royal Victoria Hospital who will be entitled to become life governors will be about 400. When the two institutions become fused and incorporated under a new charter the total number of life governors will be about 600. Under the charter of the Royal Hospital all the life governors are *ex-officio* members of the board of management and entitled to attend its meetings and to vote, while under the charter of the Royal Victoria Hospital this privilege will not be conferred on the new life governors. It is clear that the attendance of 600 persons would be destructive of the possibility of performing such work as is required for the practical administration of the affairs of the corporation, and therefore the right granted by the old charter to the life governors of the Royal Hospital is to be withheld from persons qualifying as life governors of the Royal Victoria Hospital. But as it is equally clear that the creation of two different classes of life governors of the Royal Victoria Hospital, one being *ex-officio* members of the board of management, and the other not, would be highly objectionable, it has been decided to ask the life governors to voluntarily renounce this privilege. This board of management is to be elected for three years (one-third to retire annually). In the first and second year those to retire shall be selected by the board of management by ballot. In subsequent years those longest in office shall retire. Retiring members shall be eligible for re-election. The medical and surgical staff will be elected by this board of management. This will to a large extent do away with the great evil of canvassing for medical appointments, which at present is unavoidable.

Liability for Payment of Rent in Insanitary Houses.

A curious case came before the Belfast Recorder on Sept. 25th, when an occupier of a house was sued for three quarters' rent of the premises under an agreement for five years. A child of the occupier, it was alleged, died from the unsatisfactory state of the drainage, whereupon that person left the premises and returned the key, which the agent refused. It was for the rent of the period between this date and the end of the term of agreement that the process in law was brought. Two sanitary engineers who examined the house proved it was unfitted for human habitation, and a medical man said the child of the occupier died after four days' illness from a severe type of scarlet fever, the virulence of which was intensified by the presence of sewer gas. All the members of the household (except the occupier himself) had been affected with sore-throat, a condition often produced by sewer gas. The Recorder said it was plain from the evidence that the premises were not in a sanitary condition, but if a person took premises he took them as they stood. This was not like the case of a furnished house. If it was a furnished house that would be an implied covenant that they were fit for habitation and fit for the purpose for which they were let; but if a person took a house he did so with his eyes open, and if it was not in a sanitary condition it was for those who took the house to examine it. The occupier became bound to put the house if defective in a sanitary condition at his own expense. Neither the landlord nor agent was legally bound to put the house into a sanitary condition.

Hospital Saturday in Cork.

The annual collection in aid of the Cork hospitals took place last Saturday. There were several prophets of evil who foretold that it would be useless to hold it this year as such a large sum had been recently subscribed for the hospitals in connexion with the record reign celebration. However, it is gratifying to learn that the street collections were entirely successful and fell short by only a few shillings of what was realised last year. The sums collected in several large business concerns have not yet been handed in, but it is believed that the total amount will reflect credit on all concerned.

Appointment of Professor of Practice of Medicine in the Queen's College, Cork.

Dr. William Edward Ashley Cummins has been appointed by Royal warrant Professor of the Practice of Medicine in the Queen's College, Cork, in succession to the late Professor Edward Townsend. Dr. Cummins was a distinguished *alumnus* of the Cork College, and is a gold medalist of the Queen's University, where he graduated in the year 1879 with honours. He has been a member of the staff of the Cork Women and Children's Hospital for a number of years, and is also one of the physicians of the Cork Union Hospital.

Sept. 28th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Charge Against a Medical Man.

A RECENT incident connected with a medical man is causing great excitement in Paris at the present moment. A young practitioner, by name Laporte, thirty-three years of age, who had been living for a short time in a working-class quarter of Paris, entered his name with the police commissary as a *médecin de nuit*. Some days ago he was called at 3 A.M. by a policeman to attend a woman in labour, as the midwife in attendance was unable to deliver her and had consequently applied at the police station for a *médecin de nuit*. Dr. Laporte found himself confronted with a difficult case. The woman had had five previous confinements, and upon each occasion there was some complication, so that forceps or version had been employed. Dr. Laporte put on forceps, but could not deliver the head, which was very large. He then informed the husband that craniotomy would be necessary to save the mother's life. Having obtained his consent, he sent for some chloroform and put the patient under its influence with the aid of the midwife, but being without the necessary instruments he broke up the head with such as he had at hand—namely, a chisel and a hammer. The patient was safely delivered, and when day broke the midwife took her to the hospital, where two days afterwards she died. The hospital medical officer refused permission for the burial and this brought about the intervention of the police commissary, and the husband made a complaint to the authorities, accusing Dr. Laporte of having caused his wife's death. The judge cross-examined the practitioner, who gave a simple recital of the facts and declared that in view of the urgency of the case he had used such simple instruments as he found ready to his hand, quoting as authorities the example of Pajot and other accoucheurs of the old school. The judge upon this caused him to be arrested and imprisoned. This caused a great sensation among the medical men of Paris, for an accusation of homicide by imprudence never carries with it the right of arrest. A post-mortem examination was made of the body of the woman, and there were found sundry perforations into the rectum and the uterus. For two days the daily press was full of articles declaiming against the greediness of medical men and their negligence in not providing themselves with the necessary instruments. Afterwards, however, upon the inquiry being resumed it was discovered that the unfortunate Laporte was absolutely penniless, that he had entered into practice four years before as auxiliary surgeon to a shipping company, that he then tried to practise in a rich neighbourhood without, however, having any patients, then he moved into a more modest quarter and, still meeting with no success, when his money came to an end he moved into the working-class district of the Charonne, where he had been for fifteen days. On the evening of his arrest he had had no dinner, and there were only 75 centimes in his pocket. On the police searching his house there was found a file of a private journal, which was handed over to the journalists in accordance with the usual custom, and it was then found that the unfortunate man had fought for two years against poverty and, utterly broken down by the misfortunes so common at the present day among members of the medical profession, such as medical aid societies, bad debts, and having to give medicine for nothing, he entered his name at the police-station so as to get the 10 francs which are guaranteed for every visit made at the demand of the police by a *médecin du nuit*. Called out at the request of the midwife, he had done his best, and he had even proposed to the husband to remove the woman at once to the hospital, which offer, however, was refused; besides the head was already at the vulva, and moving her would not have been without danger. Public opinion then veered completely round, and all the papers began to pity the unfortunate medical man, while letters from various accoucheurs were published, declaring that considering the high price of the instruments necessary for craniotomy it was impossible for a medical man in such a poor quarter to possess them. The Association of Medical Men of the Seine appeared as a deputation before the judge, but without result, and the judge even used the strange argument that he considered that, as Dr. Laporte had no means, the best thing to do was to send him to prison. A committee offered to give bail for him, but the judge refused. So the affair stands, and it is the one topic of conversation, not only among the medical men of France, but among the Paris public, who have already commenced to side with the unfortunate medical man as against the judge.

Gunshot Wounds of the Abdomen.

M. Chauvel read a paper at the Academy of Medicine, following on some observations made by M. Caillet, a military surgeon, in which he contended that the surgeon when confronted with gunshot wounds penetrating the abdomen ought immediately to perform laparotomy and look out for the various perforations of the viscera and see if he can close them, without waiting till peritonitis arises to force his hand. It is now known that projectiles of very small calibre cut holes in the muscular tissues so small that very often they cannot be traced, so that frequently a probe does not reveal their presence. This method of diagnosis, while it is of great value when it gives a positive result, has not, when it fails to do this, an equal importance. Despite various statistics which are opposed to hasty intervention, M. Chauvel declares that in penetrating wounds of the abdomen made by knife or sword, as well as by revolver bullets, immediate laparotomy is generally indicated.

The Pathogeny of Erratic Eruption of Wisdom Teeth.

M. Moty read a communication before the Academy of Medicine stating that in wisdom teeth extracted on account of erratic eruption there was always found at the level of their fangs a soft material, composed of epithelial cells, which could be washed out by a stream of water. M. Moty concludes that the various accidents in the eruption of the wisdom teeth are due to the inclusion of aberrant epithelial masses which represent rudimentary wisdom teeth. The term, "vicious evolution," which is habitually applied to this class of accidents is erroneous, and ought to be replaced by that of "supplementary dermoid of the wisdom teeth."

Intestinal Parasites in China.

At the same meeting of the Academy, M. Laveran read a paper upon a communication by M. Matignon, dealing with intestinal parasites. Oxyurides are very common in Pekin, as many as 95 per cent. of the children being affected by them, and ascarides are no less frequent in adults. Out of thirty patients who were treated with santonin, twenty-eight were found to harbour ascarides. These latter parasites arise from drinking water and from the use of vegetables which are frequently consumed raw, and which grow in fields where the Chinese practise sewage irrigation. On the other hand, among the Europeans who live in Pekin ascarides are very rare, because foreign residents mostly drink pure water and almost always cook the vegetables which they consume. M. Matignon reported two cases of suffocation in children owing to the presence of ascarides in the pharynx. Tapeworm was found in 20 per cent. of the Europeans who live in Pekin; among the Chinese it is very rare. Of twenty-five Chinamen taken at random and treated with "pelletierine" not one was found to suffer from tænia.

Sept. 29th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Fate of Dr. Maurizio Sacchi.

THE new issue of the "Bollettino della Società Geografica Italiana" has a deep, not to say dramatic, interest for the narrative it gives of the Bottego expedition and the light it throws on the fate of Dr. Maurizio Sacchi. There is now no doubt that the able and accomplished young medical explorer came by his death in the manner already described in THE LANCET.[1] It is a satisfaction to know that nothing was left untried to get authentic news of him and, if this gave reasonable hope of his still being alive, to rescue and bring him to a place of safety. The Italian Geographical Society in concert with the Government spared no effort to track him, and the instant it became known that he had parted company with the main body in October, 1896, the

[1] THE LANCET, Sept. 4th, p. 625.

Italian Ambassador in London and Italian Consul at Zanzibar made it their business to interest the British Government and the English resident at Zanzibar in pushing inquiries as to his movements through the medium of couriers and of the caravans traversing those regions. All this, and more, was done by the representatives of the two powers; and the upshot of the quest makes it clear that Dr. Sacchi, after the date mentioned, found his escort of twenty-five Ascars reduced by disease and death to five, and that the men of the Amhara tribe set upon the little band and killed the doctor, appropriating the ivory and other more precious material he had himself accumulated for his scientific report. The loss of this latter is to be deplored, not merely for its own sake, but for the evidence it would have afforded the contemporary world of how brave an explorer and how bright a nature-student has perished in young Maurizio Sacchi.

Honours to British Science.

Our "Accademia dei Lincei" (literally "Academy of the Lynx-eyed," the Italian equivalent to the London Royal Society), at its sitting on the 17th inst. elected a number of Fellows in the department of physical, mathematical, and natural science. Among these was the Cambridge Professor of Astronomy, Mr. G. H. Darwin, F.R.S., of Trinity. Again, in the moral, historical, and philological department there were two Fellows of English nationality elected: Dr. Thomas Hodgkin, D.C.L., author of "Italy and Her Invaders"; and the Right Hon. G. J. Goschen, M.P., First Lord of the Admiralty.

The Foundling Hospital Scandals: Official Report.

"The incredible scandals" given to the light in connexion with the Neapolitan Brefotrofio dell' Annunziata and with some at least of the foundling hospitals in the Venetian province, led, as THE LANCET announced, to an inquiry on the part of the Government into these institutions. The first of the reports issued under this mandate has just appeared, and it deals with the Brefotrofio of Padua. Its author is Dr. Natali, provincial medical officer. The document is a harrowing one, and I can well understand the "vivissima impressione" which, according to the *Veneto*, its publication has produced. The "accommodation" of the Paduan hospital Dr. Natali found to be worse than defective in every requirement of hygiene—"assolutamente inadatta allo scopo," and calling loudly for "pronti ed energici provvedimenti." One most reprehensible rule has hitherto, it seems, been rigorously enforced in the institution: "the nurses are never allowed to go beyond its walls, except in cases of urgent necessity and after special 'leave of absence' is obtained." Even under this latter regulation they must always be accompanied by a "custode." They are not even permitted to have an outing or an airing in the garden or shrubbery belonging to the Brefotrofio! The effect of this imprisonment on their health and on that of the wretched "esposti" (foundlings) to whom, three or four in number per diem, they give the breast, may be imagined. Nor does the artificial "allattamento" (milk-feeding) escape Dr. Natali's severest censure. Its results, he says, are "disastrosi." In the quinquennium 1892-96 there were 341 infants in the Paduan Brefotrofio "nourished" artificially, and of these there died 325—in other words, 94·20 per cent. As for the medical surveillance of the Brefotrofio it was "discharged" by one physician only, at a salary of 600 lire (£24) a year! For this "stipendio"—less than 10*s.* a week paid in depreciated Italian paper!—he had also on his hands the "servizio del carcere giudiziario" (the prison-service attached to the law-courts). Dr. Natali's revelations, startling though they be, are reckoned but an "antepasto" (whet) to the "banquet of horrors" shortly to be spread before the world by the report on the Neapolitan Brefotrofio dell' Annunziata.

Typhoid Fever in Milan—"A Conspiracy of Silence."

On the 14th inst. there died in Milan the eminent naval engineer, the Cavaliere Giuseppe Melisurgo, member of a noble Neapolitan family which has given more than one distinguished engineer, civil and military, to the public service. His funeral was an imposing one, attended by the *élite* of Milan, socially and scientifically, and made memorable by *oraisons funèbres* of exceptional power. All this is learned from the Milanese journals; but what they carefully leave unnoticed is the fact that the Cavaliere Melisurgo was one of many victims to the epidemic of typhoid fever that has for weeks past been raging in the Lombard capital; that he was (for purposes of isolation, I presume) an inmate of the Ospedale Maggiore, already full to repletion of similar cases; and that after treatment there he died. Since the warning given by THE LANCET (Sept. 4th, p. 625) against sojourning in Milan, owing to the severity of the epidemic of typhoid fever long prevalent, the Milanese journals have religiously kept silence as to the visitation in question, and for anything that the *Corriere della Sera* or the *Secolo*, for example, have to say of it, the city might have an absolutely clean bill of health. Now this, I submit, is dealing unfairly with the travelling world, for which Milan is a great *entrepôt*. I remember, shortly after one of the severe cholera epidemics which have of late years visited Naples, that, at a meeting of its Municipio, the then Syndic was thanked by his brother councillors for having kept dark the presence of the disease and so retained the usual number of foreign visitors who, if made cognisant of the situation, would have stayed away! Such unworthy tactics are hardly to be expected in a city so enlightened, so enterprising, so wealthy, so eminently representative of all that is most estimable in the young Italian kingdom as the Lombard capital. Imagine the *Times* in London, or the *Temps* in Paris, or the *Nord-Deutsche Allgemeine Zeitung* in Berlin, suppressing their reports of the daily progress of an epidemic so as not to scare the outside world away. Meanwhile it is a duty which THE LANCET owes to its readers to emphasise the fact that Milan is still the haunt of typhoid fever; that her water-supply, as to purity and quantity, has still to be placed under sound hygienic regulation; and that other cities along the well-known Brindisi route are quite unsafe for even the temporary sojourner owing to their want of insanitation and the inevitable results. Bologna, for example, is by no means exempt from the visitation so severely felt in Milan—indeed, the Bolognese province is at present suffering from typhoid fever in an aggravated form. "Molti e gravi casi di tifo" are reported from Minerbio, a local commune, and a medical commissioner is now on the spot inquiring into the origin of the outbreak and suggesting measures for arresting its diffusion.

Sept. 25th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Yellow Fever in New Orleans.

YELLOW FEVER, which has been very prevalent during the summer in some of the cities of the Central American States as well as in Havana, Cuba, has finally made its appearance at Ocean Springs, a watering-place on Mississippi Sound. It is believed to have reached this locality by the way of Ship Island, a station in the Gulf to which vessels resort for disinfection. Fever was at first attributed to dengue, and upwards of one hundred cases had appeared before the real cause was suspected. Several cases went from Ocean Springs to other localities, and thus spread the fever. One case in New Orleans was followed by several others. The coöperation of the local boards of health is now supplemented and greatly aided by the Marine Hospital Service. It is believed that the fever will be controlled by the combined influences of these sanitary authorities.

The Leper Island of Molokai.

Recent reports from the leper colony on the Island of Molokai furnish some interesting facts. It is the fifth in size of the Sandwich Island group, and was set apart by the Government of Hawaii for the isolation of lepers found among the population. The island contains 200,000 acres. Its surface is variegated by valleys and hills, the latter rising sometimes to the height of 2500 feet. The lepers do not occupy all the island, but only a grassy plain, ten miles in length, and varying from one to two miles in width on the north side of the island, and yet separated wholly from the rest of the island and its population by a precipice fully a thousand feet high, which can be scaled at only one point, and this is securely guarded. Despite their freedom from taxation and rent, their ample supplies of food and clothing, their abundant herds of cattle and horses, and their fertile fields which require so little labour, the lepers are virtually life prisoners, shut in by the ocean on one side and by the impassable mountain on the other. Most of the lepers are natives, but some foreigners are found among the colonists, and all who once come to this part of

Molokai, save to bring supplies or to inspect as the board of health twice each year, do so with the expectation of never returning. At a cost of some $10,000 per month the Hawaiian Government maintains this open-air leper hospital in order to perfectly quarantine, and thus finally stamp out, leprosy among the Sandwich Islanders. Vigilance is used to separate anyone who is suspected until it is definitely known whether or not he is a victim of the disease, and if so he is promptly exiled to the island. Children who are born of parents who are lepers, after passing a given age without showing any signs of the disease, are removed from Molokai and kept in confinement for a certain number of years so that they may neither contract the disease nor be the means of spreading it; then if found "clean" by the board of health they are permitted to go anywhere. Such children are educated at the expense of the Government. Thus, after thirty years the Government has the satisfaction of believing that effectual means have been devised for the care of unfortunate lepers in the most humane manner, while attempting to suppress the disease which was so threatening to the population and fair name of the Hawaiian Islands.

Immigration Figures for 1897.

The Immigration League publishes the following facts. The total immigration for the year 1897 was 230,832, being a decrease in 1897 of 112,435 as compared with 1896. The total number of illiterate in 1897 was 44,580, by far the largest percentage being from Austria, Hungary, Italy, Germany, and Scandinavia. The fact that immigration, which was 1·3 larger in 1895, has fallen in 1897 below that of 1895 is another illustration of the law that the number of immigrants depends upon the degree of industrial activity in this country. And this leads to two important conclusions: first, that immigration will increase again rapidly as business activity increases; and, second, that the present is the time when the immigration laws can be amended with the least hardship to immigrants and the least disturbance to the immigration service. In regard to European immigration in 1897 it may be noted that while the proportion of the total immigration from south-eastern Europe has not diminished, the proportion from north-western Europe, which was 52 per cent. in 1895 and 39 per cent. in 1896, is only 38 per cent. this year—a steady decline. Of immigrants from particular countries the Swiss, Scotch, and Portuguese have this year fallen below the number of 2000, while the Poles have increased again above that number. The proportion debarred and returned is steadily diminishing, having been 1 per cent. in 1896, and being 0·8 per cent. this year.

Establishing a Standard for Cream.

The official journal of the milk trade states that during 1896 there were received in New York city nine million quarts of cream—a daily average of nearly 25,000 quarts—and 320,000,000 quarts of milk. Cream comes to the city either in forty-quart tin cans or in glass bottles. According to its method of manufacture it is divided into two classes: gravity, or hand-skimmed, and machine or separator cream. The proportion of machine cream to the gravity is about ten to one. About one-half of the cream supply of New York is sold to families, the other half is sold to ice-cream factories, bakers, and confectioners. The gravity cream is largely taken by the ice-cream maker, restaurants, and hotels. Its fat contents varies, although the great bulk of it ranges from 12 to 16 per cent. The machine cream is separated from the milk by the use of some one of the several centrifugal separators. Nearly all the cream served to families is separator cream, and though brought to the city in forty-quart cans it is put into pint, half-pint, and quart bottles before delivery. The bottling process is now under the regulations of the Health Department, and must be done in such manner as to prevent contamination from dust or by other impurities. Most cream delivered in New York is at least seventy-two hours old before it reaches the city. Though the fat in the cream varies greatly there is no standard test as yet applied. The exact composition of the cream or creams is usually unknown both to the dealer or the purchaser. Every dealer knows practically how good a cream must be in appearance for his customers and secures from a wholesale dealer cream having about that appearance. Whatever the character of that cream the retail price at the milk stores is nearly the same, being about five times as much as milk. The sale of cream is absolutely without control or supervision. Anything passes as cream which the consumer is willing to accept, whether it contains 10, 15, 20, or 25 per cent. of fat. It is now proposed to establish a standard by which to determine the different qualities of cream based on the fat contents, and to pass an ordinance regulating the sale of cream accordingly.

Cruelty to Convicts.

It has been a practice in the State of Georgia of leasing convicts to private parties. The charge of great cruelty has frequently been made against those employing convicts. It has been found that the rate of mortality in private camps is double that in public camps. A recent investigation confirms these reports. In one camp thirty negroes and one white convict slept chained together in a room 15 ft. by 17 ft. with the window nailed up. In another camp forty-six negroes and fifteen whites slept in a room 19 ft. square and less than 8 ft. high. The Governor of the State contemplates pardoning all the convicts in private camps as the only way in which he can rescue them before the expiration of their terms.

Sept. 18th.

Obituary.

EDWARD MEACHAM, M.R.C.S. ENG., L.S.A.

MR. EDWARD MEACHAM, a medical man well-known and respected in Manchester, died at his house in Red Bank on the 18th inst. His career was rather remarkable. He was born in London in 1824 and went to Manchester in 1846, where he was appointed labour master for the Chorlton Union. For many years he was occupied in missionary and philanthropic work in the poorest and most squalid districts of Manchester, and resolved to study medicine in order to augment his means of usefulness to the poor. He threw himself into this new task with characteristic earnestness and zeal, undeterred by the fact that the days of early manhood were passed. He became a Member of the Royal College of Surgeons of England in 1857 and Licentiate of the Society of Apothecaries in 1862, and for thirty years was Poor-law medical officer of the St. George's district. Nearly thirty years ago he established the Manchester Medical Mission, of which he was superintendent. Living among the poor and for the poor, his life may be said to have been spent in their service. He was not a strong man, but he showed much energy in, and great devotion to, his work. Of comparatively humble origin, traces of which he retained, and with few personal wants, a very moderate income sufficed him, and he worked for others, not seeking publicity. He was a "total abstainer," and no doubt found his efforts in aid of temperance in a district like Red Bank and Angel Meadow more impressive from his own example. He was a member of the Manchester Medical Society and the Manchester Medico-Ethical Association, and was formerly for a short time surgeon of the General Hospital for Sick Children. He was sincerely respected by his medical brethren. A pathetic addition to the story is that his wife, who had always sympathised with him in his work, died four days after her husband.

H. H. J. STERLING, M.R.C.S. ENG., L.S.A., R.N.

MR. STERLING was educated at the Royal Naval School, New Cross, and afterwards became a pupil of the late Dr. Jones, a physician to the Metropolitan Free Hospital. Mr. Sterling matriculated at the London University with honours and studied medicine at University College. After passing College and Hall he entered the Royal Navy in 1860 as assistant surgeon. He served on H.M.S. *Adventure* and *Hibernia*. A few years after he was invalided from the service and retired on a pension. Mr. Sterling's state of health prevented him from undertaking the arduous duties of active private practice, and he lived a quiet, retired, and studious life. He died on Sept. 11th, aged sixty years.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men have been announced:—Dr. Rudolf Berlin, Professor of Ophthalmology in Rostock and Rector of the University, died at Linthal, in Switzerland, on Sept. 12th, at the age of

sixty-four years. He was in early life assistant to Arnold Pagenstecher and for a time also in the surgical clinic in Tübingen. He was afterwards appointed Professor of Comparative Ophthalmology at the Veterinary School in Stuttgart. In 1890 he was appointed to the chair in Rostock in succession to Professor von Zehender. Numerous papers on ophthalmological subjects have appeared from his pen.—Dr. J. Brasseur, formerly connected with the *Gazette Médicale* of Liége, and President of the Liége Medical Union.

Medical News.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE.—At the College of Medicine, Newcastle-upon-Tyne, in the third examination for the degree of Bachelor of Medicine, the following candidates have satisfied the examiners:—

Second-class Honours.—Claudia Anita Prout Rowse, London School of Medicine for Women, and Francis Pope, Mason College, Birmingham.

Pass List.—Wilfred Frank Burn, Henry Coxon Coxon, and Leopold Stanley Davison, College of Medicine, Newcastle-upon Tyne; Selina Fitzherbert Fox, London School of Medicine for Women; Edward Gofton, William John Harrison, James Andrew Hartigan, and Lawrence Fielder Hemmans, College of Medicine, Newcastle-upon-Tyne; Herbert George Harris, St. Bartholomew's Hospital; John Tyrer Johnson, College of Medicine, Newcastle-upon-Tyne; Margaret Joyce, London School of Medicine for Women; Ralph Albert Rogers Lankester, University College, London; Robert Fletcher Moorshead, University College, Bristol; Robert Atkinson Morland, Guy Broughan Picton, and Norcliffe Roberts, College of Medicine, Newcastle-upon-Tyne; Harold Robert Dacre Spitta, St. George's Hospital, and Carl Wahlgren von Bergen, College of Medicine, Newcastle-upon-Tyne.

FOREIGN UNIVERSITY INTELLIGENCE.—*Jena:* Dr. Ferdinand Gumprecht has been appointed Extraordinary Professor of Forensic Medicine.—*Giessen:* The University Medical Museum has received a valuable collection of skulls from Dr. von Hölder, of Stuttgart.—*Tübingen:* Dr. Winternitz, *privat-docent* of Midwifery and Gynæcology, has been granted the title of Professor.—*Vienna:* Dr. Haberda has for the present taken charge of the Forensic Medicine Institute, in place of the late Professor E. von Hofmann.

FOOTBALL CASUALTIES.—On Saturday last the following accidents occurred. In a match, Ardsley Parish against Barnsley Reserve, the Barnsley goal-keeper fractured his leg.—A young man, aged twenty-five years, while playing at Bolling Hall, Bradford, fractured his ankle.—At Farnham during a match a player of the Farnham club fractured his left ankle.—At Warwick a young man, playing for Warwick Victoria's Reserves against Coventry St. George's, broke his leg, and a player (right wing of the Warwick United) fractured his humerus.—In the course of a match played on Durdham Down, Clifton, between Redland Grove College and Westbury Park, a member of the former team, aged fifteen years, was struck on the side of the head with the ball. He continued for a short time to take part in the game, when he complained of illness and retired. Death occurred some few hours later. At the inquest held on Sept. 27th the medical attendant stated that he was of opinion that an artery of the brain had been partially ruptured.

LITERARY INTELLIGENCE.—The October list of the Religious Tract Society contains the names of several books of unusual interest. "Pictures of Southern China," from the pen of the Rev. James Macgowan, of Amoy, sketches the prominent features of daily life in Shanghai, Foochow, Kushan, Amoy, Swatow, Hong Kong, and Canton. "Old Samoa; or, Flotsam and Jetsam from the Pacific Ocean," is a book possessing considerable ethnological value. It is written by the Rev. J. B. Stair, who spent the years 1838–1845 in Samoa. "Philip Melanchthon," by the late Rev. George Wilson, M.A., is a sketch of the life and character and influence of the great Reformation theologian. Its appearance this year is a timely recognition of the fact that four centuries have passed away since the birth of the great friend of Luther. On Oct. 18th the society will publish a work from the pen of the Bishop of London. It is entitled "The Story of Some English Shires," and consists of seventeen chapters, each dealing with a separate county. The bishop's aim has been to produce not merely a series of historical sketches, but he has attempted to show that "places have characters of their own as much as men."

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—At a meeting of the council of this College, held at Cardiff on Sept. 24th, Mr. H. Spencer Harrison was appointed Demonstrator and Assistant Lecturer in Biology for a period of three years.

MEDICAL MAGISTRATES.—Mr. R. Smith, L.R.C.P., L.R.C.S., F.R.C.S. Edin., and Mr. Caleb Joyce, M.B. Melb., have been appointed Justices of the Peace for the districts of Carnarvon and Beaconsfield, Tasmania, respectively.

MEASLES AT ST. ASAPH.—The National and Roman Catholic schools at St. Asaph were closed on Sept. 20th owing to an epidemic of measles. The schools at Bagillt and Greenfield have also been closed through the same cause. A conference of local authorities is to be held at Flint to consider the subject of providing an isolation hospital for the northern part of the county.

PAUPERS' JAM AT BEDWELLTY.—At the last meeting of the Bedwellty board of guardians attention was drawn to an entry made in the report-book by the medical officer that the jam supplied to the inmates of the workhouse was very inferior. The chairman remarked that this was not to be wondered at considering that "the mixture" cost only 2½*d.* per pound. The question was eventually referred to a committee.

PRESENTATIONS TO MEDICAL MEN.—Mr. J. M. Jones, L.R.C.P. Edin., L.F.P.S. Glasg., medical officer to the Chirk Castle Lodge of Oddfellows, has been the recipient of a handsome mahogany bookcase from the members of the club as a testimony of appreciation of his services.—Mr. John F. Wilkinson, M.B., Ch.B. Melb., Australia, on his leaving Bright, Victoria, after a residence of ten years, was entertained at a social meeting and presented with a purse of sovereigns by the residents of the district.

VACCINATION FEES.—At the meeting of the St. Thomas's (Exeter) board of guardians, held on Sept. 24th, a letter was read from Mr. J. D Shapland, M.R.C.S. Eng., L.S.A., public vaccinator for Exmouth, in reference to vaccination fees claimed by him. The clerk to the guardians said that the fees were for work done by Mr. Shapland's son, who was not authorised to act as deputy; the guardians could not, therefore, he added, legally pay the money, but the Local Government Board had, however, agreed to sanction the payment. After some discussion it was decided that the amount should be paid, subject to the sanction of the Local Government Board.

MEMORIAL TO A MEDICAL MAN.—On the 24th ult., at the Children's Hospital, Western Bank, Sheffield, Mrs. Cleaver formally presented to the institution a portrait of her late husband, Dr. Cleaver, who in his lifetime took great interest in the work of the hospital. In October last year the Lady Mayoress opened the new wing, part of the cost of the erection of which was defrayed by the Cleaver Memorial Fund—a fund formed to place in the hospital some permanent token of the late Dr. Cleaver's work. The amount realised was nearly £700. It will be an interesting connecting link between the early days of the institution and the future.

POISONING BY MORPHIA.—On Sept. 21st an inquest was held in Bristol upon the body of a sailor, aged twenty-nine years, who had died from the effects of morphia poisoning. The evidence showed that on Sept. 18th the deceased was intoxicated, and his brother, who was on affectionate terms with him, wishing to quiet him, gave him nine grains of morphia in some beer, being under the impression that by administering the morphia with the beer "its strength would be diluted." The deceased appeared to have taken the morphia about 10 P.M., and about midnight a medical man was sent for, but in spite of every effort being used death occurred at 7 A.M. on Sept. 19th. The deceased's brother had taken the morphia from the surgery of a veterinary surgeon where he was employed as a servant. The jury returned a verdict of manslaughter.

NATIONAL REGISTRATION OF PLUMBERS.—At the Annual Congress of the Scottish Councils held at Perth on Sept. 24th Dr. Farquharson, M.P., was the chief speaker. He contended that the Plumbers' Registration Bill, so far from creating a monopoly, would tend to raise the status of plumbers. Professor Hay, medical officer of health, Aberdeen, likewise spoke in favour of the measure.

THE CINEMATOGRAPH PRIZE FIGHT AT THE AQUARIUM.—Those who believe that in America alone are to be found the more brutal pastimes of undegenerate England in the period conveniently covered by the Greville Memoirs cannot do better than visit the latest exhibition of the cinematograph at the Westminster Aquarium. On a series of films two miles in length is unrolled the great fight between Fitzsimmons and Corbett. As a performance which had the added glamour of illegality the contest is distinctly disappointing. To the uninitiated prize-fighting seems, if not so safe a pastime as cricket, far less dangerous than football, and the most neurotic journalist could describe it without a quiver of his pen. Messrs. Fitzsimmons and Corbett are not the bruisers of caricature and tradition, and their figures suggest the Apollo Belvidere rather than the Farnese Hercules, while the etiquette of the ring is as stringent as at a *partie* of piquet. As it is the shadow and not the substance we are asked to visit we can only admit that the Aquarium has secured one of the most wonderful feats of which the new entrancing toy is capable. The illusion of movement is far more perfect than it appeared a few months ago; quick action no longer jerks. Success has not been achieved in getting rid of the unpleasant noise of the instrument or in steadying the whole image, so the spectator has the feeling of witnessing the scene from a jolting railway carriage. The improvement however, is none the less marked, and to the Aquarium belongs the credit of proving that cinematography is no longer in its infancy.

VITAL STATISTICS OF SOUTH AUSTRALIA.—The annual report of the Registrar-General of births, deaths, and marriages in South Australia for the year 1896 shows that on Dec. 31st, 1896, the estimated population of the province, exclusive of the inhabitants of the Northern Territory and of aborigines, was 355,286—viz., 182,185 males and 173 101 females. The births registered in 1896 numbered 10,012, being fewer by 525 than those recorded in the previous year. Of the total births registered 5085 were male births and 4927 female, the proportion of the former to 100 of the latter being 103·21. The birth-rate per 1000 of the mean population was 28·46, against 30·23 in 1895. The births entered in 1896 as illegitimate numbered 346 (173 males and 173 females), against 330 in the previous year. The percentage of illegitimate births to the total births registered during the year was 3·46, which compares with 3·13 in 1895, and is the highest rate since 1881. The deaths registered in 1896 numbered 4038, being more by 117 than those of the previous year. The deaths of males were 2121 and of females 1917, the proportion of the former to 100 of the latter being 110·64. The death-rate per 1000 of the mean population was 11·48, against 11·25 in the previous year; in every one of the twelve years 1885–96 the death-rate was low. The deaths assigned to "miasmatic diseases" numbered 195, as follows: Scarlet fever, 4; influenza, 59; whooping-cough, 17; diphtheria, 21; simple or ill-defined fever, 1; and enteric fever, 93. "Diarrhœal diseases" included 10 deaths from simple cholera and 244 from "diarrhœa, dysentery." Under "septic diseases" there were entered 29 deaths from erysipelas, 22 from "pyæmia, septicæmia," and 48 from puerperal fever. There was no death from small-pox or intermittent fever. Arranged in order of fatality the causes of death in persons above five years of age stand as follows, the first being the highest: old age, 317; phthisis, 304; diseases of the circulatory system (chiefly of the heart) not separately classed, 248; cancer, malignant disease, 185; pneumonia, 147; and apoplexy, 103. Of those who succumbed to "old age" none were under sixty years and 14 were ninety-five years and upwards. The marriages registered in 1896 numbered 2182, being more by 135 than those of the previous year, and being the highest number recorded in any year since 1891. The marriage-rate (that is, the rate of marriages, not of persons married) per 1000 of the mean population was 6·20, against 5·88 in 1895. The estimated population of the Northern Territory (exclusive of aborigines) consisted on Dec. 31st, 1896, of 4514 males and 420 females, among whom during the year 1896 there were 43 deaths of males, 2 deaths of females, 36 births, and 1 marriage.

BOOKS, ETC., RECEIVED.

BIGGS AND CO., Salisbury-court, Fleet-street, London.
First Principles of Electricity and Magnetism. By C. H. W. Biggs. Illustrated. Price 3s. 6d.

BLACK, A. AND C., Soho-square, London.
The Nurses' Handbook of Cookery. By E. M. Worsnop, assisted by M. C. Blair. 1897. Price 1s. 6d.

CHURCHILL, J. AND A., Great Marlborough-street, London, W.
Psilosis or "Sprue": its Nature and Treatment. By Geo. Thin, M.D. Second Edition. 1897.
Elements of Human Physiology. By Ernest H. Starling, M.D. Lond., F.R.C.P. Third Edition. 1897. Price 7s. 6d.

HEADLEY BROTHERS, Bishopsgate Without, London, E.C.
The Transactions of the Hunterian Society, 1896-97. Seventy-eighth Session. 1897.

JOHNSTON, W. AND A. K., Edinburgh.
Manual of Gynæcology. By D. Berry Hart, M.D., F.R.C.P., F.R.S.E., and A. H. F. Barbour, M.A., B.Sc., M.D., F.R.C.P., F.R.S.E. Fifth Edition. Illustrated. 1897.

KARGER, S., Berlin, und H. BAUERMEISTER, Glasgow.
Die Geschwülste des Nervensystems. Von Dr. L. Bruns. 1897. Price 12s.
Die Anatomie und Behandlung der Geburtsstörungen, nach Antefixirung des Uterus. Von Dr. W. Rühl. 1897. Price 2s. 3d.
Ueber die Tabes. Von Dr. P. J. Möbius. 1897. Price 3s. 6d.

KEGAN PAUL, TRENCH, TRÜBNER AND CO., London.
Memory and its Cultivation. By F. W. Edridge-Green, M.D., F.R.C.S. 1897.

KORNFELD, H., Berlin, N.W.
Die Krankheiten des Ohres. Von Dr. A. Hartmann. 6. Auflage. 1897.

LEWIS, H. K., Gower-street, London, W.C.
Ringworm and Alopecia Areata: Their Pathology, Diagnosis, and Treatment. By H. Alderamith, M.B. Lond., F.R.C.S. Fourth Edition. Illustrated. 1897. Price 10s. 6d.
A Manual of Obstetric Practice. By Professor A. Dubrssen, M.D. Translated and edited from the Sixth Amended and Enlarged Edition. By J. W. Taylor, F.R.C.S., and Fred. Edge, M.D., F.R.C.S. Illustrated. 1897. Price 6s.
Hygiene and Public Health. By L. C. Parkes, M.D. Fifth Edition. Illustrated. 1897. Price 10s. 6d.
The Sanitary Inspector's Handbook. By A. Taylor. Second Edition. Illustrated. 1897. Price 5s.

LONGMANS, GREEN, AND CO., Paternoster-row, London.
Surgical Pathology and Principles. By J. Jackson Clarke, M.B. Lond., F.R.C.S. Illustrated. 1897. Price 10s. 6d.
Lectures on Physiology, First Series. On Animal Electricity. By Augustus D. Waller, M.D., F.R.S. 1897. Price 5s. net.

METHUEN AND CO., Essex-street, Strand, London.
The Benin Massacre. By Captain Alan Boisragon, one of the two survivors. 1897. Price 3s 6d.

NEWNES, GEO., Southampton-street, Strand, London.
The Story of Germ Life, Bacteria. By H. W. Conn. Illustrated. 1897. Price 1s.

UNWIN, T. F., Paternoster-square, London, E.C.
Liza of Lambeth. By W. S. Maugham. 1897. Price 2s. 6d.

SIMPKIN, MARSHALL, HAMILTON, AND KENT, Stationers' Hall-court, London, E.C.
Food Frauds and Foods that Feed. By Chas. Hyatt Woolf. Price 1s.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, Paris.
Gynécologie Clinique et Opératoire. Par Dr. Schmeltz, Nice. 1897.

SMITH, ELDER, AND CO., Waterloo-place, London, S.W.
Dictionary of National Biography. Edited by Sidney Lee. Vol. LII. Shearman—Smirke. 1897.

SWAN SONNENSCHEIN AND CO., London.
The Mathematical Psychology of Gratry and Boole. By Mary E. Boole. 1897.

WILSON, E., Royal Exchange, London.
The Law of District and Parish Councils, being the Local Government Act, 1894. By J. Lithiby, LL.B. Lond. Second Edition. 1897. Price 15s.

E. Merck's Index, 1897 (E. Merck, Darmstadt).—The Oxygen Treatment for Wounds, Ulcers, Burns, Scalds, Lupus, and Diseases of the Nose, Eye, and Ear, by Geo. Stoker, M.R.C.P., L.R.C.S. Irel., M.R.C.S. (Baillière, Tindall, and Cox, King William-street, Strand, London), 1897; price 2s.—The Insurance Blue Book and Guide for 1897, 1898; twenty-fifth year and publication; prices 2s. and 4s. (Champness and Co., Imperial-buildings, Ludgate-circus, London, E.C.).—Recurrent Gall-stones, Angioma of Spleen, Excision of Cæcum, by John Homans, M.D., Boston, Mass.—Magazines, &c., for October: Strand Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Sunday Hours, Ludgate Magazine, Westminster Review, Contemporary Review, Friendly Greetings, Chapman's Magazine, Myra's Journal, Pall Mall Magazine, Windsor Magazine, Cornhill Magazine, Blackwood's Magazine, Pearson's Magazine, English Illustrated Magazine, Knowledge, and Humanitarian.

Appointments.

Successful Applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAM, B. J., M.B., Ch.M. has been appointed Officer of Health for the North and and West Ridings of Ripon Shire, Victoria, Australia' vice J. Johnston.

COOK, P. R., M.B., Ch.B.Univ. New Zealand, has been appointed a Public Vaccinator for the district of Pelorus, New Zealand.

DAVIES, John Edwd. H., M.R.C.S.Eng., L.R.C.P. L.S.A. Lond., has been appointed Honorary Surgeon to Wrexham Infirmary; also Medical Officer of Health, Northern Division, Wrexham Rural District Council; also Medical Officer to Wrexham Fever Hospital, and Certifying Factory Surgeon, Wrexham District.

DUNCAN, J., M.B., Ch.M. Aberd., has been appointed a Public Vaccinator at Bairnsdale, Victoria, Australia, vice J. C. Morgan.

FISHER, H. H., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer for the No. 2 Sanitary District of the Milton Union.

FISHER, R. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Workhouse, and for the first sanitary district of the Westbury-on-Severn Union.

GOLDIE-SCOT, T., M.B. Edin., has been appointed Assistant Medical Officer to the Warneford Asylum, Oxford.

GOODE, A., M.B., B.S. Adel., has been appointed a Public Vaccinator for the Urban and Suburban District of Norseman, and for the Rural District of Dundas, Western Australia.

HANNIGAN, M. H., M.D., M.Ch. Irel., has been appointed Medical Officer for the seventh and eighth Sanitary Districts of the Stow Union.

HARGREAVES, W. H., L.R.C.P. Lond., M.R.C.S., has been appointed a Public Vaccinator for the district of Akaroa, New Zealand.

HARRIS, L. H. L., M.B., Ch.M. Syd., has been appointed Senior Medical Officer to the Sydney Hospital, New South Wales, vice W. C. McClelland.

HAWKES, J. A., M.B. Melb., has been appointed Officer of Health for Kara Kara Shire, Victoria, Australia, vice J. D. Collier, resigned.

HERRIOT, S., L.R.C.P., L.R.C.S. Edin., has been appointed Health Officer for Bulong, West Australia.

HITCHINGS, R., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Workhouse of the Headington Union.

JOHNSTON, J. C., M.B., Ch.M. Edin., has been appointed Health Officer and Superintendent of the Quarantine Station, Point Nepean, Victoria, Australia.

LAING, J. A., M.B., M.S. Edin., has been appointed a Public Vaccinator for the district of Gisborne, New Zealand.

LANCASTER, L. B., M.B Syd., has been re-appointed Resident Medical Officer to the Sydney Hospital, New South Wales.

LANE, H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Assistant Medical Officer for the Workhouse of the Cnoriton Union.

LONG, WM. J., M.B., Ch.B. Melb., has been appointed an Honorary Medical Officer to the Hospital at Bendigo, Victoria, Australia.

MACDONALD, A., M.D., C. Penn., U.S.A., has been appointed Officer of Health for the Denison and Rosedale Ridings of Rosedale Shire, Victoria, Australia, vice V. E. Prowne, resigned.

MARMION, E. J., M.B. Dubl., L.F.P.S. Glasg., has been appointed Medical Officer for the Workhouse of the Milton Union.

MORTON, W. A., M.B., Ch.B. Melb., has been appointed a Public Vaccinator at Outtrim and Jumbunna, Victoria, Australia, vice W. W. Hearne, resigned.

NEAVE, EDWARD F. M., M.B., Ch.B. Edin., has been appointed a Resident Medical Assistant to the Dundee Royal Infirmary.

PEEBLES, F. M., M.B. Melb., has been appointed an Honorary Medical Officer to the Hospital at Bendigo, Victoria, Australia.

PENFOLD, O., M.R.C.S., L.S.A. Lond., has been appointed President of the Local School of Mines, Bendigo, Victoria, Australia, and an Honorary Medical Officer to the Hospital at Bendigo, Victoria.

RENNIE, G. E., M.D. Lond., M.R.C.S., has been appointed Deputy-Coroner for the City of Sydney, New South Wales.

SEXLER, C. A., B.Sc., F.I.C., F.C.S., has been appointed a Public Analyst by the Glamorgan County Council, vice Morgan, deceased.

SHIELDS, A., M.D. Edin., has been appointed a Medical Examiner of Patients in the Metropolitan Lunatic Asylum, Kew, Victoria, Australia.

SIMONS, C. N., L.R.C.S. Irel., L.S.A. Lond., has been appointed Acting Officer of Health for Bright Shire, Victoria, Australia, vice J. F. Wilkinson, resigned.

STEWART, WM., M.D. Edin., has been appointed Medical Officer for the Bacup No. 2 Sanitary District of the Haslingden Union.

THOMPSON, L. G., M.D., Ch.M. Aberd., L.R.C.P., L.R.C.S. Edin., has been appointed a Member of the Hospital Board of Management, Launceston, Tasmania, vice Dr. Hallowes, resigned.

VANCE, N. C. A., M.B., Ch.B. Melb., has been appointed Officer of Health for the East Riding of Melton Shire, Victoria, Australia, vice A. A. Johnston, resigned.

WYNNE, J. G., L.R.C.P., L.R.C.S. Edin., has been appointed an Honorary Medical Officer to the Hospital, Colac, Victoria, Australia.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.—Out-patient Surgeon. Applications to the Honorary Secretary, Beechenhurst, Selly-hill, Birmingham.

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for the Branch Dispensary, unmarried, or if married without family. Salary £180 per annum, with partly furnished house, coal, and gas.

COUNTY ASYLUM, Whittingham, Lancashire.—Assistant Medical Officer, unmarried. Salary £100 per annum, with prospect of increase, together with furnished apartments, board, attendance, and washing.

DUNDEE ROYAL LUNATIC ASYLUM.—Medical Assistant. Salary £100 per annum, with board, lodging, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians. Also Resident Medical Officer and Assistant Resident Medical Officer. Salary £200 and £50 per annum respectively, both with board and residence.

LONDON THROAT HOSPITAL, Great Portland-street.—House Surgeon, non-resident. Honorarium, £25 per annum.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—House Physician and House Surgeon for six months. The House Physician and House Surgeon will each receive a salary at the rate of £40 a year.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho-square, London.—Resident Medical Officer, for six months. Board, residence, laundry, and an honorarium of ten guineas.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Shoreditch, N.E.—Junior House Physician for six months. Salary £15 for that period, with board and residence.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—House Physician and House Surgeon for six months. Salary at the rate of £50 per annum, with board and residence.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-road, London, S.E.—Resident Medical Officer, for one year. Salary £70 per annum, with board and residence in the hospital.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing.

SUSSEX COUNTY HOSPITAL, Brighton.—Fourth Resident Medical Officer, unmarried. Salary £30 per annum, with board, washing, and residence in the hospital.

THE RETREAT, York.—Junior Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea.—House Physician, for eight months. Honorarium at the rate of £50 per annum, with board and lodging in the hospital. Also House Surgeon for twelve months. Honorarium £50, with board, and lodging in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

CLARK.—On Sept. 25th, at Norton-road, Hove, the wife of A. Desborough Clark, L.R.C.P., &c., Edin., of a daughter.

COATES.—On Sept. 24th, at Ingleside, Whalley Range, Manchester, the wife of William Coates, M.R.C.S., of a son.

HARRIS.—On Sept. 21st, at Holy Innocent's-road, Hornsey, N., the wife of E. Bernard Harris, M.R.C.S., L.R.C.P. Lond., L.S.A., of a son.

POWELL.—On Sept. 22nd, at Glenarm House, Upper Clapton, N.E., the wife of Herbert E. Powell, M.R.C.S., of a son.

ROWELL.—On Sept. 24th, at East Rudham, Norfolk, the wife of Herbert Ellis Rowell, L.R.C.P. Lond., M.R.C.S., of a daughter.

SPILSBURY.—On Sept. 24th, at Hogsthorpe, Lincolnshire, the wife of F. J. Spilsbury, L.R.C.P., of a daughter.

MARRIAGES.

BAKER—BODY.—On Sept. 22nd, at Emmanuel Church, Plymouth, by the Rev. George B. Berry, Herbert Stainer Baker, M.R.C.S., L.R.C.P. Lond., of Rushden, Northampton, younger son of the late George Philip Baker, of Portsmouth, to Minnie, daughter of John Bond and Marina Body, of Plymouth.

CANNOCK—BEER.—On Sept. 22nd, at St. Mary's Church, Balham, Charles Watkyn Cannock, L.F.P.S. Glasg., of Counser Villa, Balham, to Helen (Neilie), younger and only surviving daughter of William Beer, of Bitterne, Balham.

FEATHERSTONE—WILLS.—On Sept. 22nd, at the Parish Church, Chapel-en-le-Frith, Derbyshire, by the Rev. J. P. Cort, Vicar of St. Anne's, assisted by the Vicar, the Rev. Dr. Given, and the Rev. W. H. Austwick, of St. Mary's, Higher Crumpsall, George W. Beaumont Featherstone, M.R.C.S. Eng., L.R.C.P. Lond., of Chorlton-cum-Hardy, Manchester, eldest son of the late B. Featherstone, Esq., of Wandsworth Common, London, to Mary M. (May) Wills, eldest daughter of Charles J. Wills, Esq., of Bank Hall, Chapel-en-le-Frith.

PERRAM—MACLAINE.—On Sept. 23rd, at St. Mark's Church, Dundela, Belfast, Edward Arthur Perram, M.D., third son of the Rev. George J. Perram, M.A., Holmwood Lodge, Highgate, London, to Violet Frances, younger daughter of George Langtry MacLaine, Wandsworth House, Strandtown, Belfast.

WHEATLEY—THOMPSON.—On Sept. 29th, at All Saints', Upper Norwood, by the Rev. P. B. Power, M.A., formerly Vicar of Worthing, assisted by the Rev. J. Oakley Coles, Vicar of All Saints'; James Wheatley, M.D., son of Charles Wheatley, of Edgerton, Huddersfield, to Mary Elizabeth, only daughter of Charles H. Thompson, of Oaklands, Beulah-hill.

DEATHS.

BROGDEN.—At Lagos, West Coast of Africa, Maria Victoria Brogden, formerly of St. Bartholomew's Hospital.

REID.—On Sept. 26th, at Migvie, Bournemouth, Duncan Reid, M.A., M.B., formerly of Aberdeenshire, aged 31 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Sept. 30th, 1897.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp.	Wet Bulb	Dry Bulb	Remarks at 8.30 A.M.
Sept. 24	29·89	S.W.	0·02	101	68	55	56	60	Fine
,, 25	30·18	W.	0·03	104	70	55	53	56	Fine
,, 26	30·24	S.W.	...	98	70	55	60	62	Fine
,, 27	30·27	W.	...	70	64	50	50	51	Foggy
,, 28	30·10	E.	0·06	76	64	50	57	59	Dull
,, 29	29·97	S.E.	1·24	91	71	56	58	58	Foggy
,, 30	29·78	W.	...	72	59	52	52	53	Overcast

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

WARTY NIPPLES.

To the Editors of THE LANCET.

SIRS,—I beg the favour of a small space in THE LANCET to ventilate the above subject, and to ask advice as to the treatment or non-treatment of the condition. I have a patient, a primipara expecting her confinement at the end of October, and the other day she asked me to look at her nipples. I did so, and found the centre of each nipple occupied by a large wart. The top of the wart had died, and I easily pushed it off with my thumb, leaving a cup-shaped ulcer out of which hung long tendrils. A very small part round the edge of each nipple seemed healthy. The patient says that this growth and death of the warts has been going on for a year or two. Like an infant's cord after birth, the growths become black, then a dirty white, and then fall off. Now as my patient is within a month of her confinement, should anything be done in the way of cauterising or otherwise? Again, should the patient be allowed to try to suckle the child? I should welcome any advice on those two points. Though in practice for over twenty years I have come across only one other case of the kind. It occurred in the practice of the late Professor Leishman, of Glasgow, whom some years ago I had the privilege of occasionally assisting. The whole of the left nipple was represented by a huge wart, but as the other nipple was quite healthy, it was decided to do nothing in the matter before the birth.

My patient is very anxious to be able to suckle, so I ask advice as to how her nipples may be put right by the end of October.

I am, Sirs, yours truly,

W. J. COLLYER ADAM, M.B., C.M. Glasg.

Acre Lane, Brixton West, Sept. 22nd, 1897.

Constant Reader (Southsea) has omitted to enclose his name and address.

Mr. F. W. Phipp.—A trace of permanganate of potassium.

ADVERTISING EXTRAORDINARY.

A CORRESPONDENT has sent us from Wolverhampton a very remarkable little pamphlet, one which we should refuse to believe had emanated from a member of the medical profession had it been possible to doubt it. It is entitled "Application to the Officers and Members for the Appointment of Medical Officer to the Great Western Railway Provident Society," and runs as follows:—

GENTLEMEN,—

It is with regret I hear of the resignation of DR. ELLIOT, your present medical officer. Since his successor will doubtless be elected after competition, I have allowed myself to be nominated as a candidate for the post; and in applying tender various reasons why my appointment would be of advantage to the Society.

The position of my surgery is central and near the Low Level Station. My practice is of a private nature, and not overburdened with ordinary club appointments: and being assisted by DR H. CARTER MACTIER, who is highly qualified, being Bachelor of Medicine, Bachelor in Surgery, Bachelor in Midwifery, and Bachelor of Arts of the University of Dublin, and who has had excellent experience as House Surgeon in a large Dublin Hospital, and until lately was Resident House Surgeon to the Wolverhampton Eye Infirmary. I have appreciated his help in a department which is of great importance to railway employees—sight failure—which for want of skilled advice often leads to loss of position in your Company.

My personal experience before coming to Wolverhampton has been exceptionally and unusually practical and prominent. Successful as a student in obtaining various Honours, Medals, and Prizes, I was elected to the honorary post of House Physician in the Edinburgh Royal Infirmary, a most exclusive and enviable appointment; thereafter going abroad and spending some years in studying under the greatest Professors of the day in the Capitals of Austria, Germany, and in other foreign towns.

Your have on a previous occasion honoured my predecessor DR. BLANCH, with marked evidences of your esteem; and now I hope my efforts as a private practitioner will deserve even greater support. I only regret my knowledge of the election was rather delayed, thus debarring me the honour of addressing you, but I hope that that circumstance will not minimise the number of my supporters.

In the event of my election a branch surgery if required will be placed in a district selected by a majority of the members, also the Telephone may be available; and I promise to further the interests of your society in every possible way.

Vote gentlemen for **ability, efficiency,** and **experience.**

WILLIAM POLSON.

Bachelor of Medicine and Master in Surgery, University of Edinburgh.

Late House Physician, Royal Infirmary, Edinburgh.
Medallist in Medicine, Edinburgh.
First Prizeman in Public Health, Edinburgh.
Prizeman in Medical Jurisprudence, Edinburgh.
Honours in Midwifery.
Honours in Diseases of Women and Children.
Honours in Surgery.
Medical Referee for the Prudential Assurance Co.
,, ,, ,, Pearl ,, ,,
,, ,, ,, Mutual Reserve Fund Assurance Co.
,, ,, ,, Royal Liver ,, ,,
,, ,, ,, Royal London ,, ,,
,, ,, ,, British Workman ,, ,,
,, ,, ,, Pioneer ,, ,,
,, ,, ,, Edinburgh.
Medical Officer to Oddfellows, Caledonian Corks, and Brotherly Societies.

This letter, which was swollen into pamphlet shape by the addition of a photograph of Dr. William Polson in evening dress, cap, gown, and hood, and a cover on which that gentleman's name was printed in large capitals, is really a very extraordinary document to be published by a graduate in medicine, however keen his anxiety to secure an appointment. To our minds it is distinctly degrading for a practitioner to assure a lay audience that he is offering them *ability, efficiency,* and *experience.* Such statements when forming part of the advertisements of tradesmen are taken at their proper value, but it is an innovation for a medical man to employ trade methods with such frankness in the desire to get on, and we do not desire to compliment Dr. Polson on the departure. We recommend him, on the other hand, to beware of assuming publicly the attributes of ability and efficiency, however large his experience.

Dr. William Donovan, of Erdington, asks us to state that he is not the Dr. Donovan mentioned in our annotation last week entitled "Midwives."

THE MEDICAL STUDENT IN PARIS.

IN our recent Students' Number we published an article on the Cost of Medical Education which attracted the notice of the French press, many papers on the other side of the channel doing us the compliment of commenting upon the information contained in it. Naturally they compared the life of the student in London with that of the Paris student, and pointed out the absence in London of everything which could remotely resemble the famous "quartier Latin." In London there is no Sorbonne and no central college around which the universities and schools with their special *personnel* can cluster. Consequently the students scattered in groups round hospitals situated in widely separated areas are unable to leave their imprint upon any particular district, to hall-mark its cafés, to dictate to its music-halls, or, indeed, to impress themselves at all upon the community. *L'Autorité* concluded by stating that in Paris the life of a student is more costly than in London, while the prospect of early practice in Paris is even less to be envied. For "si des médecins anglais font des visites à un shilling, combien de jeunes docteurs français attendent leurs premiers clients pendant des mois et parfois des années!"

Sentiment.—From our correspondent's account it would seem that the second medical man who saw the child should have surrendered the case to him. But from the same account it is clear that this gentleman was more than usually awkwardly placed. We strongly advise our correspondent not to allow the matter to break his professional friendship with his brother practitioner.

"PEGAMOID."

WE have had brought to our notice a process which claims to render wall-papers, fabrics, &c., waterproof, germ-proof, dust-proof, and stain-proof. The process, which is called pegamoid, and gives its name to the articles thus treated, has been in use for some time, but it does not seem to be generally known, at any rate in England. As it may prove of importance from a sanitary point of view it may be well to direct the attention of our readers to the process. It consists in applying in a liquid form a composition which, after impregnating the fibres or pores of the material treated, solidifies. Ceiling- and wall-papers, as well as imitation leathers—which latter in some cases it is difficult to distinguish from the real article without minute examination—treated by this process can be washed with water and disinfected with strong disinfectants without in any way injuring the surface of the article treated. Even caustic soda seems to have little effect upon it except by boiling, and the only thing which has a deteriorating effect is alcohol. Wine and ordinary spirits, however, may be spilt upon pegamoid, but if washed off within a reasonable time prove unharmful. For upholstering purposes the process may have distinct advantages, and in the case of wall-papers it should prove of great importance, inasmuch as dirt and even ink-stains can be washed off with a wet mop. Wood, iron, and stone work can also be treated by this process in the form of paint. A silver paint which we have tried is washable and untarnishable. The address of the company is 144, Queen Victoria-street, E.C.

R. H.—A pamphlet written jointly by Mr. William Barnard, LL.B., and Mr. G. B. Stocker deals with the transfer of medical practices and allied questions. It is published by Stevens and Sons, 117, Chancery-lane. Mr. Percival Turner also treats of the subject of the purchase and sale of practices in his Guide to the Medical and Dental Professions, published by Baillière, Tindall, and Cox, King William-street, Strand.

Plumbism.—A [Departmental Committee was appointed by the Home Secretary in the spring of 1893 to inquire into the subject of "Industrial Lead Poisoning," and its report was presented to the House of Commons in December. A copy of the report could doubtless be procured from Messrs. Eyre and Spottiswoode, East Harding-street, Fleet-street, E.C.

"AN URGENT APPEAL."

To the Editors of THE LANCET.

SIRS,—I have received the following subscriptions in addition to the sum already acknowledged in THE LANCET, bringing the total up to £10 19*s.* 6*d.*:—J. C., £1 1*s.*; A. P., 5*s.* The widow and eight children of the late Mr. Campe desire me to express their sincere gratitude to the members of the profession who have so generously helped them in their trouble, and may I thank you also for so kindly allowing the appeal to be made in THE LANCET.—I am, Sirs, yours faithfully,

WM. ASTLEY COOPER.

56, New-road, Rotherhithe, S.E., Sept. 22nd, 1897.

THE Diplôme d' Honneur has been awarded to "Vinolia" soap at the International Exhibition at Brussels.

THE INFLUENCE OF HEREDITY.

WE take the following passage from an interesting paper, headed "The Transformation of Heredity," which appeared from the pen of Dr. James G. Kiernan in a monthly magazine entitled *Medicine* published at Detroit, U.S.A. Zola would not have dared to imagine such things:—

> "To illustrate how much may be gained by careful examination in this particular I shall cite some researches of my own pursued in regard to one family during more than two decades. The family originated in the Eastern States, but has branches south and westward. A farmer lived twenty miles distant from his nearest neighbour, whose only child he married. The daughter had led a lonely life till her courtship at the age of twenty-eight by the farmer, then three years younger. The farmer married her for $200 after having impregnated her. He then found lead on his farm and went to a city. A stock company bought his farm and launched him into the stock market, where he made money, more as cunning tool than adventurer. He became a high-liver, gouty and dyspeptic, and died from gouty kidney at the age of seventy. The couple had five children. The eldest, a son, became a 'Napoleon of Finance,' inherited his father's cunning, and died wealthy within the pale of the law. He married a society woman, the last scion of an old family. The second child, a daughter, was club-footed and early suffered from gouty tophi. She married a society man of old family who had cleft palate. The third child, a daughter, had congenital strabismus. She married a man who was suffering from irregular migraine. The fourth child, a daughter, was normal. She married a thirty-year-old active business man in whom ataxia developed a year after marriage. The fifth child, a son, was ataxic at eighteen. The scions of the 'Napoleon of Finance' and the society woman were an imbecile son, a hysteriac, a female epileptic who had a double uterus, a nymphomaniac, and a society man who wrote verses. The cleft-palated society man and club-footed woman had triplets born dead, and a strabismic migrainous son who, left penniless by his father, married his cousin, the nymphomaniac daughter of the 'Napoleon of Finance,' after being detected in an intrigue with her. The migrainous man and strabismic daughter of the farmer stock-broker had a sexual invert masculine daughter, a daughter subject to periodical epistaxis irrespective of menstruation as well as chorea during childhood, a normal daughter, a deaf-mute phthisical son, a cloacal daughter, an ameliac son, a cyclopic daughter born dead, and a normal son. The sexual invert married the versifier son of the 'Napoleon of Finance.' The progeny of the normal daughter of the farmer stock-broker and the ataxic man were a dead born sarcomatous son, a gouty son with early tophi, twin boys paralysed in infancy, twin girls (normal), a normal son, and a son ataxic at fourteen. The progeny of the nymphomaniac and her strabismic migrainous cousin were a ne'er-do-well, a periodical lunatic, a dipsomaniac daughter (who died of gastric cancer), deformed triplets who died at birth, an epileptic imbecile son, a hermaphrodite, a prostitute, a double monster born dead, a normal daughter, and a paranoiac son. The ne'er-do-well married his epistaxic cousin. The gouty son of the farmer's normal daughter married the hysteric daughter of the 'Napoleon of Finance.' They had a son born with unilateral asymmetry, a prostitute, dead triplets, a male sexual invert, a colour-blind daughter, and a normal son. The colour-blind daughter married a paranoiac grandson of the 'Napoleon of Finance.' The progeny of the sexual invert and the versifier (who were soon divorced) were a periodical nymphomaniac who had some artistic and literary talent, and a son who died of gastric cancer. The scions of the ne'er-do-well and the epistaxic woman were a moral imbecile, a 'bleeder,' a stammering daughter who had uvula deformity, a deaf-mute cryptorchid, dead-born triplets, an infantile paralytic son, and dead-born quadruplets. The progeny of the paranoiac and his colour-blind cousin were an exophthalmic daughter, an epileptic cryptorchid, a cleft-palated imbecile with a cloaca, dead-born quadruplets, an idiot boy, and a 'bleeder.'"

"A CASE OF HEMICHOREA WITH APHASIA."

To the Editors of THE LANCET.

SIRS,—With regard to the treatment of chorea I have seen many drugs used—choral, hyoscyamus, zinc sulphate and salicylate, and veratrine. I myself have never seen arsenic fail, although I have seen these other drugs fail to arrest the movements. We have at present a case of chorea in which salicylates were used for a fortnight without benefit. Recourse to arsenic is having a marked beneficial effect. With regard to the pathology of the disease I can only quote theories, as we are, and are likely to remain, in darkness, and our pathology is merely a suggestive pathology. Certainly the clinical features of the case seem to support embolic origin. Might we ask the question, What is the origin of chorea in cases in which no valvular lesion is present? Mimicry in childhood is a very strongly developed faculty, and why should a child not mimic the movements of chorea? They naturally excite interest, or shall I say curiosity, on the part of the child and might be compared to "habit spasms." Removal of a child to another ward will, we know, check these choreiform movements.

I am, Sirs, yours faithfully,

Sept. 27th, 1897. S. J. ROSS.

THE SANITARY CONDITION OF HIGH WYCOMBE AND WYCOMBE MARSH.

WE have received a communication from the secretary of the High Wycombe Water Company, Limited, in reference to an annotation in THE LANCET of Sept. 18th on the above subject. The secretary, imagining that we were unaware of the existence of the company in question, furnishes us with some particulars in regard to it. The facts, however, related by Dr. Wheaton in his report to the Local Government Board on typhoid fever at High Wycombe were fresh in our minds when we remarked on the necessity for a pure water-supply to the *whole* of High Wycombe. We were aware that Dr. Wheaton had reported that the water-supply was derived "principally from wells," but that the company in question supplied a certain number of houses in the district. Concerning this company's supply, Dr. Wheaton says in his report, dated Aug. 20th, 1895: "A very small number of houses in Wycombe are supplied from this source; and even where the company's water is laid on it has frequently not been made to supply the closet." The secretary states that about 900 houses are now supplied by the company, so that even if no additional houses have been built since the last census there must, apparently, still be some 1800 houses supplied from the "extremely unsatisfactory" sources to which Dr. Wheaton referred.

Mr. G. Careles.—The following books may be found of use in addition to those we recommended last week: "The Art of Dispensing," published by the *Chemist and Druggist*; "Practical Dispensing for Students," by C. J. S. Thompson; "A Laboratory Course of Pharmacy and Materia Medica," by W. Elborne; "Lessons on Prescriptions and Prescribing," by W. H. Griffiths; and "Notes on Dispensing," by George Stirling.

Assistant.—It is a case for legal advice and probably legal interference. Assuming the facts to be as our correspondent states them he has our sympathies, while we do not see how his late principal can attempt to defend his behaviour.

Mr. E. Lyddon.—Our correspondent's remedy would seem to us to be to take legal proceedings against his traducer. Of course he would not do that without proper legal advice.

MEDICAL AID SOCIETIES.

To the Editors of THE LANCET.

SIRS,—In the town in which I live and carry on my professional work there exists a medical aid society registered under the Friendly Societies Acts. This medical aid society issues handbills from door to door informing the public that they can have medical and surgical aid on payment of 1*d.* per week for adults and ½*d.* per week for children. The medical officer is paid a fixed salary and is debarred from private practice, and he is to all intents and purposes a servant of the committee who carry on the business at a profit. If the medical officer left the service of the committee and decided to carry on medical aid work on his own account and issued handbills and placards as the committee now do, it is very probable that the Colleges whose diplomas he has or the General Medical Council would judge him to be guilty of infamous conduct in a professional respect. Is it fair or proper that a medical man cannot do on his own account work which a lay committee is allowed to do? If a medical man becomes the servant of a layman to do medical work his diploma will be cancelled by the General Medical Council; but if five or six laymen form themselves into a committee they are permitted with impunity to engage a qualified man's services and to enter into an agreement debarring him from private practice and from practising within a fixed radius after leaving their service. The whole thing appears to me to be such an anomaly and so grossly unjust that I believe the members of any other profession or calling would not submit to it for a single month. Can the General Medical Council or the Colleges find no remedy for this evil, which is rapidly growing, and which is driving many members of the profession into serfdom?

I am, Sirs, yours faithfully,

Sept. 27th, 1897. A LANCASHIRE SURGEON.

Mr. H. R. Tebboth.—The Roentgen rays have not yet been discovered sufficiently long for us to answer with any certainty. The depilatory effects of the rays have been stoutly denied by some observers and circumstantially affirmed by others, both in our columns and elsewhere. We recommend our correspondent to consult some of the writers.

M.B., C M.—We refer our correspondent to an excellent article on the subject in the "Dictionary of Applied Chemistry," by Professor T. E. Thorpe, F.R.S., vol. ii., p. 177. Impurities in coal gas are dealt with under the Gasworks Clauses Act, 10 and 11 Vict., c. 15.

Mr. V. B. Clark.—The persons named in our correspondent's letter are not qualified English practitioners. We strongly recommend him not to consult them.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (5th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (6th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), ing's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.).

THURSDAY (7th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (8th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (9th).—Royal Free (9 A.M. and 2 P.M.), Middlesex, (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (6th).—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. F. J. McCann and others. Paper:—Mr. Alban Doran: On the Management of True and False Capsules in Ovariotomy.

FRIDAY (8th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.)—Dr. W. P. Herringham: Sudden Death in Rheumatic Fever due to Myocarditis.—Dr. W. H. White and Mr. J. Langton: Stricture of the Pylorus: Loretta's Operation.—Dr. A. G. Phear: A Case of Cerebral Sinus Thrombosis.—Mr. G. H. Makins: A Case of Œsophagotomy for the Extraction of a Tooth Plate, in which Cellular Emphysema developed in the Neck without Injury to the Pleura.

WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.15 P.M. Annual Meeting. Election of Officers for 1897-98. Dr. G. H. Savage: The Insanities of Evolution and Dissolution. (Purvis Oration.)

LECTURES, ADDRESSES, DEMONSTRATIONS, ETC.

TUESDAY (5th).—GRESHAM COLLEGE (Basinghall-street, E.C.).—6 P.M. Dr. S. Symes Thompson: Preventive Medicine in the Victorian Era. (Gresham Lecture).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Sir W. R. Gowers: The Neuron and Disease.

WEDNESDAY (6th).—GRESHAM COLLEGE (Basinghall-street, E.C.).—6 P.M. Dr. S. Symes Thompson: Preventive Medicine in the Victorian Era. (Gresham Lecture).

THURSDAY (7th).—GRESHAM COLLEGE (Basinghall-street, E.C.).—6 P.M. Dr. S. Symes Thompson: Preventive Medicine in the Victorian Era. (Gresham Lecture.)

FRIDAY (8th).—GRESHAM COLLEGE (Basinghall-street, E.C.).—6 P.M. Dr. S. Symes Thompson: Preventive Medicine in the Victorian Era. (Gresham Lecture).

During the week marked copies of the following newspapers have been received:—*Bridlington Telegraph, Wolverhampton Chronicle, Sussex Daily News, Cambria Daily Leader, Glasgow Herald, Pioneer Mail, Times of India, Manchester Courier, Sheffield Evening Telegraph, East Anglian Daily Times, Liverpool Daily Post, Scotsman, Retford News, Devon Weekly Times, Builder, North Wilts Herald, Leeds Mercury, Birmingham Gazette, Western Morning News, Architect, Berkshire Chronicle, Dundee Advertiser, Isle of Wight Observer, Newcastle Chronicle, Westminster Gazette, Bristol Mercury, Edinburgh Evening News, North Wales Chronicle, Keene's Bath Journal, Midland Times, Yorkshire Post, Worcester Herald, Maryport News, Derbyshire Advertiser, Huddersfield Chronicle, Leicester Post, Sheffield Telegraph, Grantham Journal, Lincoln Gazette, Preston Guardian, Bury Times, East Devon Advertiser, Rugby Advertiser, Wilts County Mirror, North British Daily Mail, Hampshire Telegraph, Bedford Times, Brighton Gazette, Northampton Daily Chronicle, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Gazette (Montreal), Mining Journal, Hertfordshire Mercury, City Press, Local Government Journal, Public Health, Engineer, Surrey Advertiser, Guy's Hospital Gazette, Yorkshire Herald, Hong-Kong Weekly Press, Australasian Medical Gazette, Englishman (Calcutta), West Sussex County Times, Coventry Herald, West Middlesex Herald, Stowmarket Courier, Penarth Chronicle,* &c., &c.

Communications, Letters, &c., have been received from—

A.—Mr. S. H. L. Abbott, Oxford; Messrs. Allen and Hanburys, Lond.; Mr. W. Allingham, Lond.; Mr. T. Archer, West Worthing; Association for the Supply of Pure Vaccine Lymph, Lond.; Dr. G. Apostoli, Paris; Dr. W. J. C. Adam, Lond.; Messrs. Arnold and Sons, Lond.

B.—Mr. L. A. Bidwell, Lond.; Messrs. Burgoyne, Burbidges, and Co., Lond; Mr. W. H. Best, Ilford; Dr. A. G. Bateman Lond.; Dr. Brown, Penang; Dr. R. Barnes, Lyss; Messrs. Banks and Co., Bolton; Mr. W. J. Bebb, Wolverhampton; Bovril, Ltd., Lond.; Messrs. J. Bell and Co., Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; Bristol Royal Infirmary, Secretary of; Mr. A. S. Barling, Lancaster; Birmingham and Midland Hospital for Women, Secretary of; T. B. Browne, Ltd., Lond.; Mr. J. Beckton, Lond.; Messrs. C. Barker and Sons, Lond.

C.—Mr. F. Collis Sanders, Tralee; *Canadian Journal of Medicine and Surgery*, Toronto, Editor of; Messrs. Cooper and Hoit, Lond.; Mr. J. W. Casey, Liverpool; Mr. V. B. Clark, Slough; Messrs. Crossley, Moir, and Co., Lond; Messrs. B. Cook and Co., Lond.; Messrs. J. and A. Churchill, Lond; Cheltenham General Hospital, Hon. Secretary of; Messrs. Cassell and Co., Lond.; Messrs. Condy and Mitchell, Lond.; Dr. W. Carter, Liverpool; Mr. W. F. Clay, Edinburgh; Cantab. Lond.; Custom House, Liverpool, Chief Clerk of; Messrs. R. Crooks and Co., Liverpool; Messrs. Catton and Puckey, Lond.; Mr. S. S. P. Cumine, Killough; Mr. F. W. Clarke, Manchester.

D.—Dr. L. Drage, Hatfield; Mr. J. E. N. Davies, Wrexham; Mr. J. Donaldson, Ashton-under-Lyne; Messrs. J. Dewar and Sons, Lond.; Dundee Royal Lunatic Asylum, Medical Superintendent of; Mr. C. Dowding, High Wycombe; Dr. W. Donovan, Erdington.

E.—Dr. Edge, Maidenhead; Messrs. Elliott, Son, and Boyton, Lond.

F.—Mr. P. V. Fry, Farnworth; Messrs. A. Faber and Co., Lond.; Surgeon-Colonel E. Fairland, Gravesend; Dr. J. T. Fotheringham, Toronto; Fromm's Extract Co., Lond., Secretary of; Mr. N. Hay Forbes, Tunbridge Wells.

G.—Sir W. R. Gowers, Lond.; Mr. W. F. Gardener, Lond.; General Medical Council, Lond., Clerk of; Mr. H. Green, Lond.; Messrs. W. Gaymer and Son, Attleboro'; Mr. C. F. Glinn Hatherleigh; Dr. W. H. Gregory, Beverley; Dr. W. J. Gow, Lond.

H.—Mr. W. S. Harris, Heidelberg; Mr. R. J. Hillier, St. Albans; Mr. Reumont Heggs, Wolverhampton; Dr. W. H. Hewlett-Essex; Mr. T. Garrett Horder, Cardiff; Dr. W. R. Hubbard, Rugeley; Mr. J. Heywood, Lond; Mrs. E. Henry, Oxford; Mr. D. P. Heatley, Edinburgh; Mr. E. J. Huxley, Lond.; Mr. C. Hudson, Lond.; Home, Lond.; Mr. J. Heywood, Manchester; Messrs. Hirsenfeld Bros., Lond.

I.—Industrial Inventions Development Co., Lond., Secretary of; *The Insurance Times*, New York, Editor of.

J.—Messrs. Jones Bros., Bristol; Dr. Jaeger's Sanitary Woollen System Co., Lond; Jenner Institute for Calf Lymph, Lond., Manager of.

K.—Dr. W. Kidd, Blackheath; Messrs. H. S. King and Co., Lond.; Messrs. R. A. Knight and Co., Lond.

L.—Dr. J. Fletcher Little, Lond.; Dr. J. J. Lynch, Walsall; Dr. R. H. Lucy, Plymouth; Mr. E. Lyddon, Birmingham; Leeds Advertising Agency, Ltd.

M.—Surgeon R. F. Mortimer, H.M.S. *Pheasant*, Cumalaska, Pacific Station; Mr. J. McKay, Lond.; Mr. B. W. Macarthur, Altrincham; *Medical Standard*, Chicago, Editor of; Mr. C. D. Marshall, Lond.; Medical Society of Victoria, Melbourne, Secretary of; Mr. R. Martin, Gilford; Dr. P. Manson, Lond.; Mr. C. J. Mayhew, Ramsgate; Mr. Maurice, Reading; Mr. H. McLeod, Englefield Green; Messrs. C. Mitchell and Co., Lond.

N.—Dr. R. Norton, Folkestone; Dr. R. Neale, Lond.; National Hospital for Diseases of the Heart, &c., Lond., Secretary of; *Newcastle-on-Tyne Daily Journal*, Proprietors of.

O.—Dr. J. Oliver, Lond.; Messrs. Oppenheimer, Son, and Co., Lond.

P.—Dr. E. Phillips, Coventry; Dr. Alf. G. Paterson, Ascot; Messrs. Parkins and Gotto, Lond; P. L. B., Lond.; Dr. F. A. Purcell, Lond; Mr. F. T. Pain, Lond.

R.—Mr. R. H. Rowell, Houghton-le-Spring; Royal Victoria Home, Bristol, Warden of; Dr. F. W. Forbes Ross, Lond.; Rex, Lond.; Dr. R. Richmond, Great Bardfield; Messrs. Richardson Bros. and Co., Liverpool; Dr. L. Roberts, Caerswa; Rotherham Hospital, Collector of; Messrs. Reynolds and Branson, Leeds; Robertson and Scott, Edin.

S.—Mr. J. Startin, Lond.; Dr. H. Stedman, Towcester; St. Andrew's Hospital, Northampton; Sussex County Hospital, Brighton, Secretary of; Messrs. Smith, Elder, and Co., Lond.; Messrs. Street and Co., Lond.; Suburb, Lond.; Swift Cycle Co., Coventry; Salt Union, Ltd., Winsford; Mr. G. Spicer, Lond; Dr. W. Seright, Greenock.

T.—Mr. J. C. Taylor, Jersey; Mr. W. Tallack, Lond; Mr. F. Treves, Lond.; Miss Thompson, Dalbeattie; Dr. J. W. Talent, Ashton-under-Lyne; Dr. H. Tilley, Lond.; Taunton and Somerset Hospital, Accountant of; Mr. S. Torbett, Rockferry.

U.—University of Durham College of Medicine, Newcastle-on-Tyne, Secretary of.

V.—Victoria Hospital for Sick Children, Secretary of.

W.—Dr. H. N. Watts, Romford; Miss A. Weber, New York; Dr. A. Wallace, Colchester; Messrs. Wilcox and Co., Lond.; Miss Woodward, Folkestone; Messrs. W. M. Wills and Co., Lond.; Mr. S. Wand, Leicester; Mr. W. F. Wyllie, Wimborne; Mr. Henry White, Bradford.

Y.—Dr. W. M. Young, Lond.; York Retreat, Medical Superintendent of.

Letters, each with enclosure, are also acknowledged from—

A.—A. D. L., Lond.; A. B., Lond.; A. B. C., Lond.

B.—Dr. W. H. Burke, Rajkot, India; Mr. F. C. Brett, Bridlington Quay; Messrs. Blondeau et Cie., Lond.; Mr. L. Bostock, Huddersfield; Mrs. A. Brogdon, Uddington; Mrs. Buxey, Southampton; Mr. H. S. Baker, Rushden; Mr. W. S. Battiss, Dorking; Mr. W. M. Beaumont, Bath.

C.—Mr. W. Coates, Manchester; Carriage Insurance Co., Lond., Secretary of; Coach, Lond.; Colchester Infirmary, Secretary of; Colebs, Lond.; Carpus, Lond.; Dr. D. E. Cantillon, Cardiff; Mr. D. Clifton, Stockport; Mr. M. Corkey, Glenanne; Chercheur, Lond.; Clavicle, Lond.

D.—Mr. W. H. Date, Culmstock; Dr. Dewar, Bishop Auckland; D.P.H., Lond.; Dispenser, Fairfax-road; Delta, Lond.; Deltoid, Lond.

E.—Dr. M. Evans, Lond.; Mr. F. G. Ernst, Lond.; E. A. C., Lond.; Education, Lond.; Établissement Thermal d'Uriage, Director of; Exon, Lond.

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